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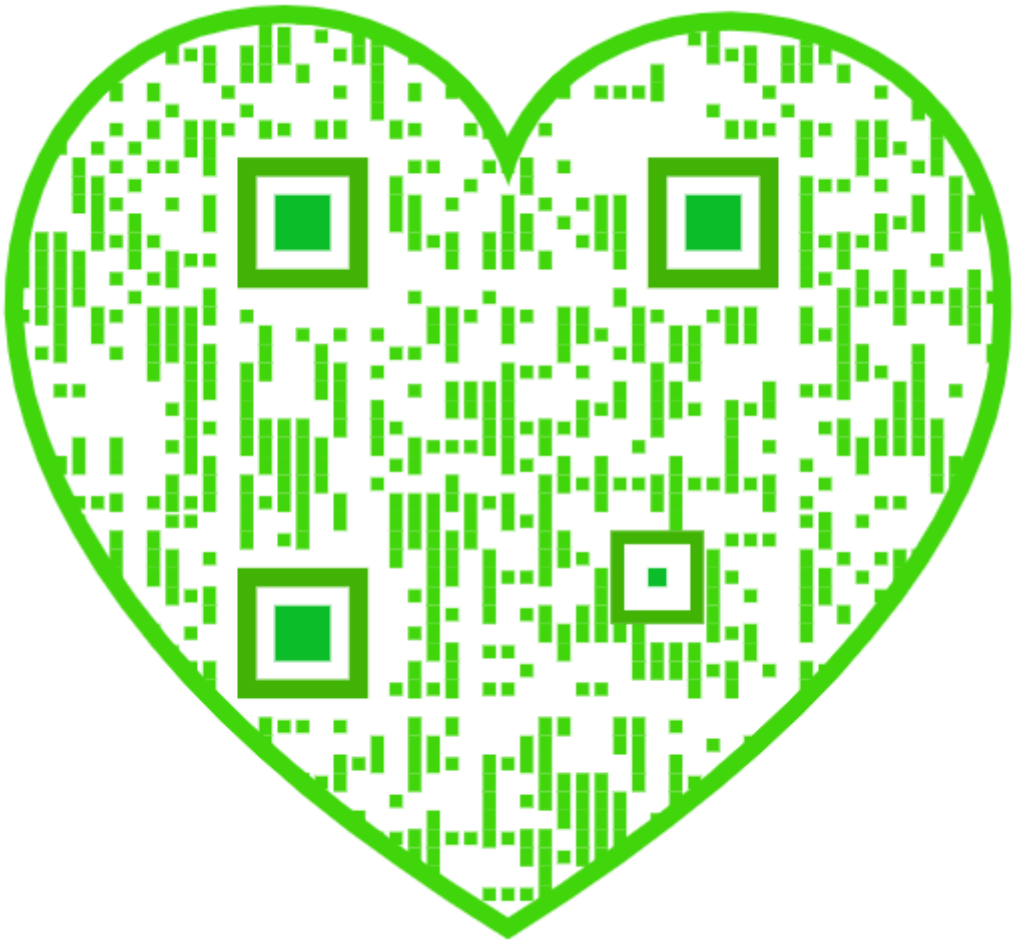

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THE GOLD FIELDS

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MINERS AND SETTLERS.

—FOR—

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Southern California Publishing Co.
Room No. 42, Lanfranco Block, Los Angeles, Cal.
1889.

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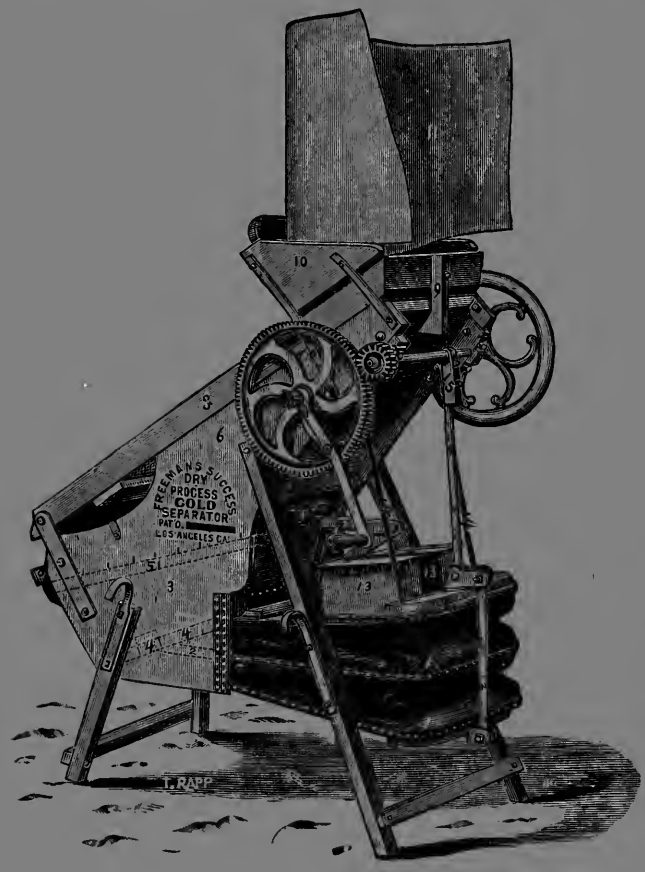

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The Gold Fields

—OF—

LOWER CALIFORNIA.

BEING A COMPLELE GUIDE BOOK WITH OFFICIAL MAPS, REVENUE AND MINING LAWS, ETC., ETC.

FOR MINERS AND SETTLERS.

Bascom A. Stephens

Southern California Publishing Co.
Room No. 42, Lanfranco Block, Los Angeles, Cal.
1889.

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BY

B. A. STEPHENS.

AUTHOR OF

The Quijotoa Guide Book,
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The Resources of Los Angeles County,
A Succinct History of Los Angeles City,
The Resources of Tulare Valley,
Towns on the Santa Fe Route,
Illustrated Chart of History of Arizona,
Viticulture in Southern California,
Secretary of Historical Society
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PREFACE.

THE sudden migration of several thousand people into the Mexican Territory of Lower California, caused by the discovery of rich gold fields there about two weeks ago, the lack of knowledge, among many who have gone there, of the country, its history, resources and laws, as well as to answer such questions among those abroad who cannot help feeling interested in this mighty movement, has prompted the publication of this book. It was gold that caused the settlement of Alta California. History is repeating itself in Baja California, that New Italy, which is indeed the colophon (Kalifornia) of that great book—the world. The great Peninsula is too good a country to remain any longer a terra incognita.

B. A. STEPHENS.

Los Angeles, March 8, 1889.

CHAPTER I.

INTRODUCTORY—THE DISCOVERY—THE RUSH TO THE MINES—AN EXPERT'S REPORT—THE GEOLOGICAL CHARACTER OF THE MINES—THE ROUTE TO THE MINES—COL. T. MASAC'S CONCESSION.

INTRODUCTORY.

The United States might be expected to make no great way in civilization till they be fully peopled to the Pacific, and it might not be unreasonable to expect when that event has occurred, the greatest civilization of that territory will be found in the PENINSULA OF CALIFORNIA and the narrow strip of country beyond the Rocky Mountains.—*Vestiges of Creation*, A. D. 1835.

Where are the gold fields of Lower California? How can I get there? How much is the fare? Is there any reason for all this excitement? Are the news from the Santa Clara gold mines reliable? What are the tariff and mining laws of Mexico? In case these mines should fail, will it pay to settle in that country? Tell me all about it.

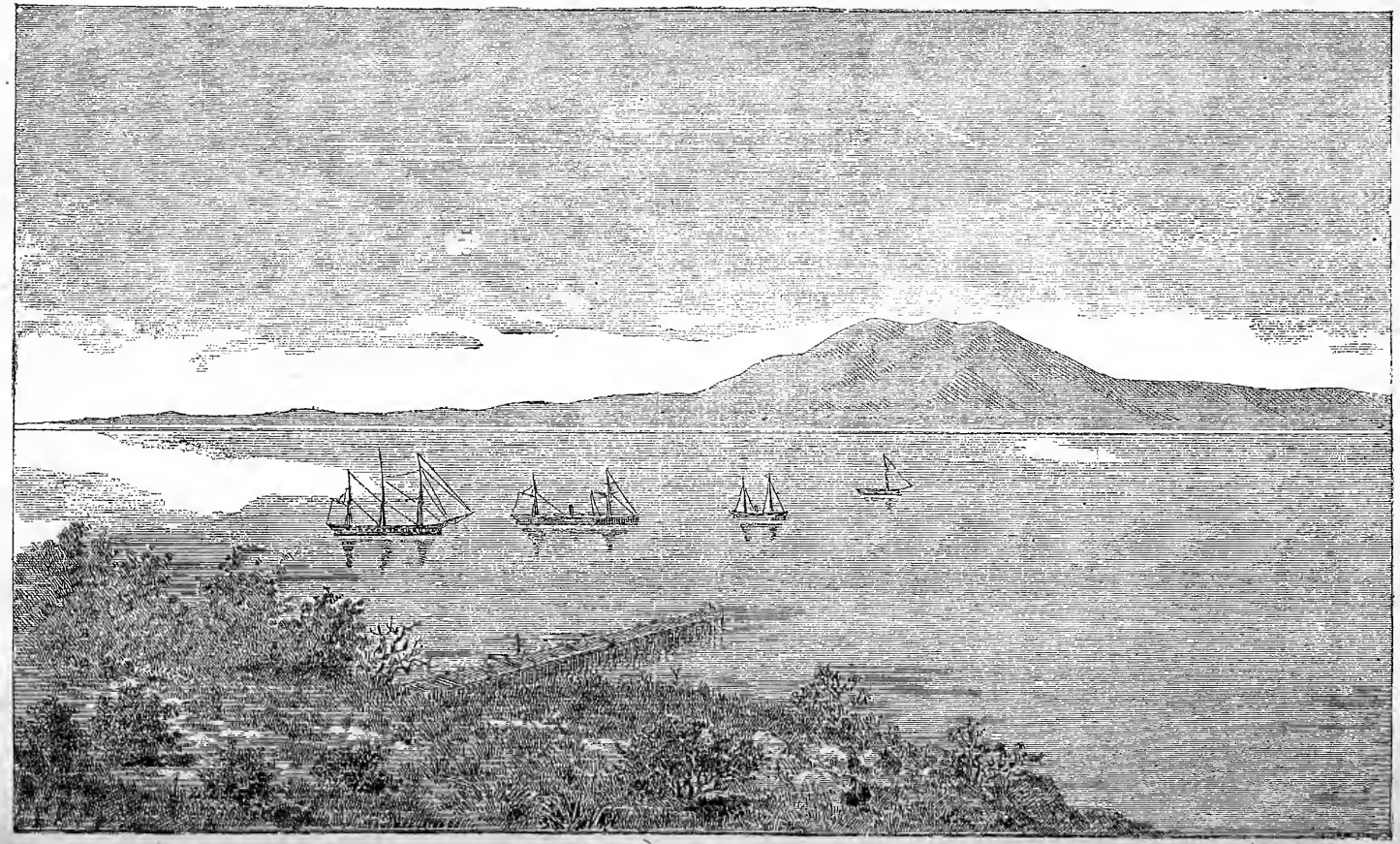
These are sample questions that are being asked by thousands of people on hearing the news that gold is being found in fabulous quantities in the gulches and canons of the Mexican territory of Lower California. Such reports have been coming in for some three weeks past. A gold mine has a peculiar fascination for the human mind, and rouses a strong excitement. The reports have been confirmed by persons returning from the mines with gold dust and nuggets which they themselves dug out. This increased the excitement to such an extent that nearly all the male population of Ensenada have gone to the mines, something like 3000 people have left San Diego, and on one day (Saturday, March 9, 1889) fully 600 people left Los Angeles on one train. At present writing, miners, prospectors and tenderfeet are flocking in by scores and hundreds from all the Pacific States and Territories. Large numbers are crossing l y the old route of the Patys, the Kentucy trappers, who went from Yuma to Santa Catarina Mission in 1828. Rich and poor, big and little, prominent and obscure people are hastening to the find, and a low estimate will place 5000 Americans now at the Santa Clara gold mines.

Coming right on the heels of the financial depression which followed the great real estate boom of 1886-7 in Southern California, its excitement affords temporary relief to minds made melancholy by commonplace times.

The San Diego Union and Bee of March 9, 1889, thus appropriately comments:

"The watchwords of prosperity have been changed. A week ago we talked commercial development, and questioned each other about railroad projects. To-day, in meeting a man we do not waste words by inquiring into his intentions, but straightway ask, 'When do you leave for the mines?' Not long ago we were selling land. To-day we are dealing in picks, pans, tents and camp-kettles. A little time ago we shouted ourselves hoarse in our efforts to excel our neighbors in patriotism and in love of home. To-day we seek a valid excuse for breaking away and going into a foreign land because the gold is there. We seek for an excuse, and finding none, go anyway and let the excuses take care of themselves. These are among the effects of the mining boom in our midst.

"What is the fate of our friends who have gone before? We say 'gone before' advisedly, for no man can say who will go next. In the camp some men will succeed—some will bring back gold as some have done, and some will return with empty pockets. All men will not succeed. All never do anywhere. It is not the fault of the place but of the men. Some will call it luck, others will name it by other names. The result will be that the prospectors will find out more about Lower California than has been known before. They will penetrate the country and examine it with the careful eye of the gold finder. Others, not prospectors, will also learn the country, seeing it with the eye of the gold seeker. One of the greatest results of the mining boom will be that Lower California will be better known and its features more clearly understood. The history of early California life will be repeated. Many will soon tire of the tediousness of mining, and some of these will return, but many will not. Those who stay there will seek other and more congenial avocations. They will become tillers of the soil, they will investigate the possibilities of manufacturing, and the country will be developed through their exertions. The results will be commensurate with the efforts of the individuals. There are many opportunities for men in Lower California, and 'our sister republic' will reap a rich harvest from an accession of workers. The International Company will be greatly affected by so sudden and great an increase of people on the peninsula. For a long time that corporation has been spending money to get people to go to Lower California. Now they are going. It matters not whether they go in just the manner that the corporation desires. They are going, and will continue to go—and it will be for corporate interests to adapt themselves to popular wants, The International Company can greatly assist the incoming population, and profit by the reflex benefit."



SAN QUINTIN BAY, LOWER CALIFORNIA—MT. CENIZA, LOOKING WEST.

THE DISCOVERY.

"About the 23d day of last February," says George Robarts, an "Indian came into a store in Ensenada with considerable gold dust. The storekeeper shrewdly obtained from the Indian the knowledge of the location of his mine and went there himself to work. His continued absence led others to look for him and discover his secret. Their success in gathering gold speedily became known. Ensenada became excited, then San Diego, then Los Angeles and all Southern California. The Indian's mine was in the Santa Clara valley, about forty-five miles southeast of Ensenada."

The following extracts from responsible newspapers and their correspondents will tell the tale:

The Lower Californian, under date of March 7, 1889, has the following interesting letter from the mines. Immediately upon receipt of the first news, one of the editors of the paper, Ira Bennett, a man not easily deceived in mining matters, left for the mines, and the following is a letter from him which will be of interest.

"The excitement created in regard to these mines was started over the diggings of a single gulch (Cañada Mexicana), one of the smallest in the whole district, and now almost dry. All work—except a few locations of ledges—has been done in this gulch until now. Gold was first discovered here, and it was here that the ten-ounce nugget was found. American gulch, a branch of Mexican gulch, and widening at the head into a wide mesa, bears indications of still greater richness than the little gulch where work is now being done. By the time you receive this a string of locations will be made along the stream, which is quite large, and good developments are expected. The head of American gulch is bounded by high hills, and in these, especially Gold Hill, most of the locations of quartz ledges have been made. L. H. Gaskill, Charles Bennett, John Vipon and others have been exploring this region, and both Mr. Gaskill and Mr. Bennett tell me that indications point to richer developments than have been made anywhere for years. The Centipede lead, which passes through the center of Gold Hill, is about twelve feet wide, and specimens pulverized in a mortar yield at the rate of $300 to $500 per ton. No quicksilver was used, but only a gold-pan, so that much of the fine gold was lost. A close assay would doubtless show an average of $500 per ton. The Centipede, in Mr. Gaskell's opinion, is the mother vein of the district, as its length—already discovered eight miles—and richness would seem to indicate. The ledge is composed of rose quartz, with an iron stain. Mr. Gaskill and his company have also located and denounced six other ledges, as follows: Mescal, one mile north of the Centipede; Bonita, on Burro Hill, adjoining American gulch; Oro Fino, on Gold Hill; Gold Queen and Cholla, both at the head of American gulch.

Several more locations have been made by the same parties, and other ledges have been located by a company of ten organized in Ensenada.

"On Saturday, March 2, 1889, there were 300 Americans in Santa Clara Camp.

"Many Mexicans have brought their wives and families, and intend to stay here till they make their pile. The camp is strung along Mexican gulch for two miles, the Mexicans occupying the head of the gulch and most of the Americans clustering at the foot, around the camp of Messrs. Edwards and Anderson, who are among the pioneers. The whole district presents a busy scene, and work is going on in all directions. Gold is found in every pan, and enthusiasm in every camp. No one is to presume that all are getting rich 'hand over fist,' striking pockets at every blow of the pick, etc., or that this differs from the ordinary mining camp. On the contrary, many are barely paying their grub, and occasionally an unfortunate argonaut is encountered who came here on great expectations, and who is forced to apply to his fellow miner for rations. But these are exceptional; the majority are making good wages, and $25 to $100 per day is not uncommon. As was remarked by Charles Bennett, the richness of the diggings is so wonderful that the average prospector, if he does not find nuggets by the panful, throws it away in disgust, not stopping to wash out the fine gold. All gold taken out here is very coarse, in size from a pea to an inch in diameter. Color has been found in every gulch so far prospected, and even on the hills near a ledge a panful yields ten cents of gold.

"There is room here for 1,000 prospectors, and it would take that number of men three months to prospect this district. Six miles to the southeast of Alamo butte, which is the base of all measurements here, the Lopez brothers are opening a ledge of promising ore. There are several fine locations for mill sites near their mine, with water (temporary) in the adjacent cañon. The extent of the district is wonderful, and it all promises equally well. If half is realized which now appears on the surface, this district will excel anything discovered since 1849. A healthy sign is found in the way the veteran prospectors are sticking to this country. They do not say much but their silence speaks.

"A word to new comers: Let all bummers and gamblers stay away. The police force is well organized in this camp, perfect order is maintained, and no lawlessness, claim-jumping or other customary mining camp antics will be tolerated. All peaceable prospectors, willing to work, will find a welcome and plenty of room and material. All outfitting should be done in Ensenada or San Diego, as grub and tools cannot be obtained here. Fresh beef can be had, however, at 25 cents a pound, and an enterprising Mexican has established a portable blacksmith shop.

"Gaskill, Bennett & Co. have located seven ledges, and work will begin on them as soon as tools and machinery can be got on the ground. It is my opinion that the best pay for this camp in the future will be from the quartz

mines, although it will be many a month before the placers are exhausted. The men with whom I am camping have taken out of one hole, five feet deep, eight feet long and six feet wide, something like $200. This was done in about four days, and no pockets have been struck. They are down to bed-rock, and great hopes are entertained for the next few days' work.

"Bennett, McGrath & Co. have located a gold quartz ledge in American gulch, below the junction of American and Mexican gulches, and named it "The Feverish Hornet." It is a rich strike.

"Now is the time to come if work in the placers is contemplated. As I write reports come in of rich quartz finds near the Lopez mines, and this afternoon four parties in Mexican gulch took out over $200, one nugget weighing $28. Several pockets have been struck during the day, but it is difficult to ascertain the amount, as the boys are not quick to give away their affairs. It is sufficient to say that this is the most promising gold field on the coast. I. E. B."

M. W. Wallace returned from the Santa Clara gold mines on March 8, 1889, and said to a Union and Bee reporter:

"I saw a number of rich finds. Those who are working with the pan are taking out all the way from $10 to $50 per day, and some have gone as high as $300. I saw a Mexican take out a large nugget which I should judge weighed between four and five ounces. He was offered $100 in Mexican money for it and refused to accept. A moment later I heard him offer to sell his claim for $150. He found no purchasers, as there were plenty of claims near by just as good, and he wanted to sell because five ounces is more than enough for a Mexican miner for a week."

W. C. Van Arnam and J. C. Amendt have returned from Santa Clara. They are very enthusiastic. Both say there is not the slightest doubts as to the wonderful richness of the region. Of that they are satisfied. They say that the Mexicans who have been longest at work in the diggings are taking out gold to the extent of $15 a day each. They say that there is a great lack of mining implements and that there is a crying want for rockers.

They say it would be well for all to come well provided with such tools. As to the richness of the ground there can be no doubt, and this is exemplified by the fact that many Americans who are working, and simply as an experiment too, the ground abandoned by the Mexicans, pan out from 25 to 50 cents to the pan, with which the old miners now seem to be perfectly content. Indeed, they wink their eyes, as much as to say: "When these duffers get through, we'll have a picnic." A Mexican took out $1500 in two days in the space of eight feet square. Very rich quartz lodes are being discovered, and they promise even more than the placers. There is no doubt of the richness of the placers; the only question is: How extensive are they?

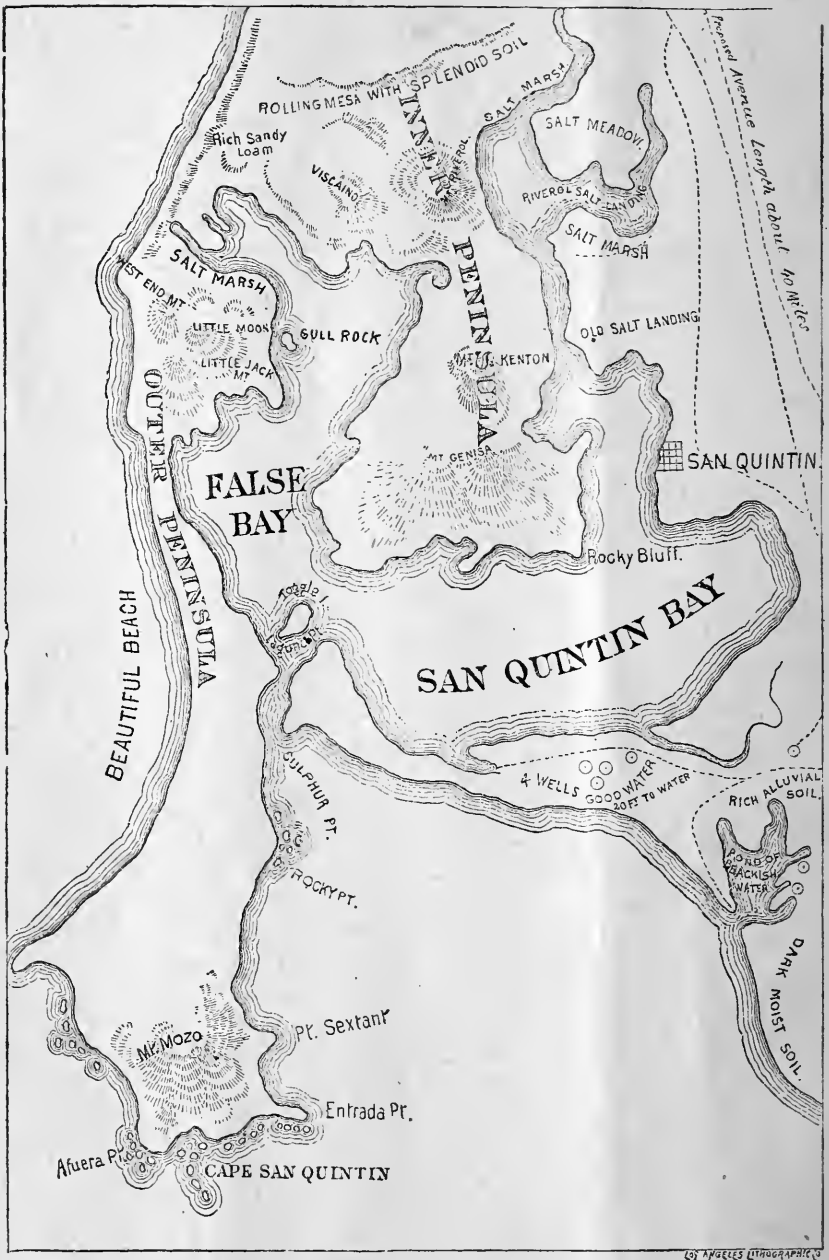
Ex-Governor Ryerson says that the largest nuggets weighs "only 10

ounces, lacking 80 cents. The lump has been exaggerated to 27 ounces by some one, and has so appeared in the papers. It is also an exageration to say that miners are shaking nuggets off the grass roots or using a plow to turn them out of the ground as one might picture. I think it is also an exaggeration to say that everybody is finding gold. I believe that more who go down will not make expenses than will go and get a stake. I am certain, however, that all prospectors who know how to prospect for gold, where to get dirt and how to get it out after they get the dirt in the pan, will make money, and good money. I don't believe that more than one in ten who go down to the fields know how to do this, and therefore I believe that about nine in ten will come back broke, or at least dissatisfied."

H. H. Douglas, of the Ensenada Commission Agency, and who has had several years' experience in the mines of Arizona, visited the new mines the first of the week. The Telemeco, the Ulise and the Princess, all on the same vein, and the Crusinero, Grande and Grandota on another streak, which are three to six feet rose quartz croppings all in the Los Alamo Basin, are, in his opinion, the best ledges yet found. He said if he owned any of them he would sink on them. He thought the district would be particularly valuable as a quartz mining district, although the placers are good as long as water lasts.

S. Lidy is in from the new diggings. He reports that those who are working are doing well on the average. Will Cochrane, he says, located a placer claim in one of the many little gulches near camp, and while working it discovered a blind lead which prospects very rich. When his discovery was made known, 150 men flocked into the gulch and are thoroughly prospecting it.

Emil Quarre received a letter last week from Pigot, formerly proprietor of the Commercial restaurant, who is now at Ensenada, and in that letter Pigot more than confirms all that has been said concerning the richness of the diggings. Pigot advises Quarre to come south at once, so as to be among the first in the field.



HARBOR OF SAN QUINTIN

LOWER CALIFORNIA.

THE RUSH TO THE MINES.

Such news as the foregoing produced the profoundest sensation. Each day brought a seeming confirmation of the truth of the reports, and the rush to the mines began. First, all the male population of Ensenada went. The surplus population of San Diego followed. The following telegrams and letters tell the story well:

SANTA CLARA MINES, via Ensenada, March 5, 1889.

[Special to the Los Angeles Tribune]—Your reporter on arriving at the Santa Clara mines found the camp containing about three hundred persons, with the gold fever running high, but otherwise very orderly.

The camp is about forty miles from Ensenada over a good wagon road via San Rafael, where hay and grain can be had, the first at 1½ cents and the latter at 4 cents per pound.

I find the diggings so far confined to one gulch about two miles long, the pay dirt averaging 25 feet in width. The gold is found in this gulch in a thin deposit of sand and gravel. I find that there are several other gulches of a similar character which when prospected will be found equally rich with the one now being worked. Everybody is in a rush, and the character of the work is such that no provision is made for the saving of the finer particles of the precious metal, and the washings of both rocker, pan and bateo show nothing but coarse nuggets, many of which weigh as high as $5, $10, and some even reach the size of $20 pieces, and I am told that men are making as high as $20, $50 and even $100 per day in favorable localities. Be this true or false, one thing is certain, all who are here are satisfied and no one leaves except when compelled to do so for the purchase of supplies. I also visited fourteen quartz ledges which have been located. Nine of these are rosy quartz considerably honeycombed, showing the presence of iron—that sine quá non of gold-bearing quartz—in considerable quantity. These ledges vary from two to six feet in width and lie between a slate and porphyry contact. Free gold is seen quite frequently in these ores. The geological formation, as I said before, is slate and porphyry, with a syenite butte in the center of the camp, rising 400 feet above the surrounding country. Like all new camps where the gold excitement runs high, everything is very scarce and everything very dear. Water, timber and gold seeming to be the only things that are plentiful and easily obtained. Persons coming here should be sure to supply themselves well with tools, bedding and provisions. Not failing to remember that they must also start with sufficient coin to pay the duty on their teams and outfit when crossing the line, as Mexico, like our own country, believes in a protective tariff. I will send you fuller details when I have had time to make a fuller investigation.

SAN DIEGO, March 7, 1889.

The gold fever grows in excitement hourly. Nothing else is heard of on the streets except wonderful finds of nuggets, which add fuel to the fire. All want to go, and many are making all sorts of excuses to close up their business here and get away as soon as possible. Many are going with scarcely enough to take them to the land of promise, and to those without some means the earnest advice is again given to consider well before going. It is absolute folly for any man to go unless he is well equipped for a month at least. The rush is not phenomenal by any means, considering the nature of the reports that are being received. In a mining country such reports would mean a perfect stampede, and if 10 per cent. of the people who went in would succeed it would be considered unprecedented. If one man in ten does well—and there is reason to believe that two men out of five will succeed in this boom—the region will form an interesting portion of the mineral-producing history of America.

The exodus has begun in earnest, however, and men are going to the mines, and going in the most fantastic manner. The roads are lined with them, and a motley crew they are. One party of ten is on the way, with a wagon loaded heavily with their outfits. They have no animals to draw their vehicles, but four of them have improvised harness and are pulling, while the others in turn push behind.

A correspondent of the San Diego Union and Bee wrote:

SANTA CLARA MINES, Tuesday March 5, 1889.

Since my last letter about 100 Mexicans and equally as many Americans have arrived. Ensenada is almost depopulated of the male population, and a great many are here from San Diego. A number of persons have left in disgust, as they term it, but they are of the sort that would leave heaven in a week if they did not get ice cream three times per day. What I said in my first letter regarding the mines I want to reiterate.

There is lots of gold here, and it is not confined to any particular locality. Four gulches have been worked up to this writing, and gold in colors and nuggets has been taken out in all of them. Men who know nothing whatever about mining come here with a garden hoe and greasy dish pan to rake up a fortune in a day. They generally dig a hole about big enough to bury a cat in, and finding nothing, sit down and curse. Others come decked as if they were starting on an English chase, their wagons are loaded with all the delicacies imaginable, and before camp is made they are digging away as if the mountains were to be turned over. This class generally lasts until their grub is gone, and all the work they do is on the day of arrival. There is still another class who accomplish nothing and go away kicking. They are what are called by miners "coyotes," or pocket robbers. This set will work in no one place more than an hour at a time. Every time a nugget is found in ear-shot of them, they "pull up stakes" and rush to the

the scene. They come into camp tired and hungry after a day of useless endeavor, and that graduates them for camp loafers, or sends them home grumbling. Too many people have false ideas about mines and mining. Gold does not grow on trees, but under the grass, the ground and rocks. It takes work, and the hardest work that is known, to reach the precious metal. I make these introductory remarks so as to bring the cold facts before your readers. I am cooking for five men and myself, and you can bet your chance for the "Pearly Gates" it keeps me hustling. My grub gave out and I had to come down off the plug-hat perch. The only loafer is a fellow with the ready cash, or the sport who wants that cash.

San Diego, March 7, 1889.

[Special dispatch to the Evening Express.]—The mining news continues most favorable, and San Diego has the appearance of the palmiest days of the boom. The streets are filled with strangers outfitting for the mines and with wagons and pack mules loaded with miners' outfits. An average of 600 men have left daily for the mines during the last four days, and today more than that number start. Help at the hotels and restaurants have largely left, and two-thirds of the force on the Cuyamaca Railroad are gone.

Two hundred and fifty men came in on last night's train. The best indication regarding the value of the mines is that no one has returned except to replenish grub stakes. The telegraph operators have also joined the prospectors.

Eight hundred men were camped at Tia Juana, awaiting clearance from the custom house. Ensenada is practically deserted by males. W. C. Van Arman and J. C. Amendt of San Diego, who were among the first at the mines, arrived at Ensenada last night. Both are very enthusiastic, the only question being how long will the placers last. Fifteen good rich ledges have already been discovered and promise a permanent camp.

Experienced Mexican miners average $15 a day with crude tools. Rockers are very much needed. Numerous other valleys are to prospect when the present find is exhausted. One Mexican took out $1500 in two days in a pocket eight feet square, and 25 to 50 cents a pan is made by Americans who wash over the ground after the Mexicans.

The largest nugget found yet weighed ten ounces. The gold is very pure and assays 23 carats. Of course it will be well to remember that the majority who go, even if the camp is good, will not even pay expenses. Only experienced miners stand a good show. Tenderfeet will do well to hesitate, especially before leaving a good business at home. Gold dust is coming in quite freely. Plenty of wood and grass are found at the mines. Grub is scarce and the valley being 4500 above the sea the weather is cold. A stage line now runs from San Diego, making the trip in three days. D.

San Diego, Cal., March 7, 1889.

[Special dispatch to the Evening Express.]—Hundreds of men are leav-

ing here, and the roads are lined with them and their vehicles. No conveyance however shaky is refused, and a man with a road cart and a tough broncho thinks he is well off. One party of ten managed to get hold of a wagon, but as they could not secure horses they took turns, four at a time, in hauling the affair. The crowds are kept waiting, to their great disgust, at the line, where their goods and outfits have to be overhauled by the custom house officers, and Tia Juana is consequently surrounded by the camp fires of those waiting to cross the line or of those who have already cleared.

The great trouble seems to be that many are starting off for the mines with barely enough provender to carry them through, and when they arrive it is more than likely that many of them will suffer greatly from the scarcity of food and raiment. One set of men, whose looks show them to be tenderfeet of the tenderest kind, started out from here yesterday with hardly grub enough to take them across the line, and with no more clothes than the thin apparel they wore during the winter here.

OTHER MINES.

The mines of Lower California are yet to be developed, but the mountain ranges contain various minerals, such as silver, copper, iron and coal. Gold has been found on the coast and in some of the valleys, and already mines in several localities are being successfully worked. The International Company has already discovered a large deposit of iron ore twelve miles south of Todos Santos bay, and two large veins of coal closely approaching Pennsylvania anthracite. Among other mineral deposits have also been found marble, red sandstone, hone stone and alabaster, and at San Quintin bay there is a large deposit of salt. Ten miles from Ensenada is a fine deposit of iron, which will cause the erection of smelting works, and give employment to several hundred men.

Take the San Nicolas mine. In the early days this mine kept from twenty to fifty men constantly at work with eighteen rastras. Each rastra turned out from $18 to $75 per week, runing in the fashion of the natives—from 9 or 10 a. m. till 3 or 4 p. m.

The San Nicolas Company has put a practical and experienced miner in as superintendent. They have twelve men at work. The mill is expected to be ready to start up in a few days.

The International Mining Company have twenty-five men at work at Valledares bringing in the water. A good man of experience has been sent there to take charge of the work. The mining engineer has been there and examined the mines and believes there is good pay to be taken out. The

Company has also put men at work on four other mines with good prospects.

In all the placers good work is being done in a small way, but enough to show what might be done on a much larger scale.

The International Mining Company have a force of men at work on the sulphur mine near the Colorado River. One of the best miners on the Peninsula, who has just been there, says that he believes it to be a property of great value—sulphur without end.

The Lisalda gold mine, which is a short distance below the international boundary, beyond Tia Juana, Lower California, has been bonded for six months by a syndicate. This is one of the best properties on the peninsula, the assays showing from $30 to $400 a ton. Gold and silver ore is taken from a six-foot vein with 300 feet of working. The ore will be shipped to the National City reduction works. This is the well known Cuerro Venadas mines, fourteen miles south of the boundary line and about four miles from either the proposed Coast or Inland line of the Peninsula railway.

Lugo Bello has denounced a newly discovered mine near the Sauzal road, about a mile and a half from Ensenada, which has been named the "Noche Buena." This new prospect is a perpendicular iron-capped ledge of about three feet in thickness at the top and increasing to four and one-half feet in thickness at a depth of eight feet, to which depth the vein is bared. A good start has been made towards opening a tunnel and clearing a road from the ledge to the Sauzal road. No test has yet been made of the ore, but a quantity was forwarded by Mr. Bello to parties in San Francisco a a few days since, and its value will soon be known. The ore is composed largely of iron, with no doubt some gold and silver.

The San Francisco mine, near the St. Nicholas, has three true fissure veins. A seventy-foot horizontal tunnel has so far developed three distinct pockets; the last one yielded $12,000.

There are valuable gold placers in the foothills east of San Quintin, which are fully as rich as those of San Rafael or Santa Clara. The Mexicans work them in a quiet way a few months each year, taking out sufficient gold for their necessities.

Near Santa Gertrudes mission, south of San Quintin, are very rich gold placers. Being in the arid zone of the peninsula on the eastern slope of the Sierra Madre, they are difficult to work on account of lack of water, except in the rainy season. The mines on the western slope of the Sierra do not have this difficulty.

THE ROUTE TO THE MINES.

By reference to the map of the Peninsula of California on page 36, the Santa Clara gold mines can be easily located. In the upper left hand corner, within the boundary of the United States of America, is the city of San Diego. Down the coast, just below the 32d parallel of latitude, is the Ensenada de Todos Santos (Bay of All Saints—so called because discovered by the Spanish on that day 287 years ago). Here is the town of Ensenada, the capital of the Upper District of Baja California, having a population of some 3,000, and is the residence of Governor Don Luis E. Torres. About 45 miles southeast of Ensenada, over the first range of mountains, which in themselves are only the foot-hills of the Sierra Madre, is the little valley of Santa Clara. named for the holy abbess of the Italian convent of Porciuncula. Yet so small is this valley that it is not mentioned in either Books B or C of the Field Notes of the survey for the International Company; nor is it marked on any of their large maps, and very obscurely on one of their small maps.

From Ensenada there is a road going southerly through the Maneadero valley, then easterly through the La Grulla valley and over the mountain divide into the Santa Clara valley, a total distance of about 45 miles. From Ensenada to La Grulla is a fine wagon road over which a team can trot the whole distance; and from there on is a wagon road over the divide between La Grulla and Santa Clara valleys.

There are two ways of reaching the Santa Clara gold mines:

1. By steamer from San Diego to Ensenada, 67 miles; thence by team to Real del Castillo, 30 miles; thence to Santa Clara about 35 miles; total, 142 miles.

2. By team or stage direct from San Diego. From the latter place to Tia Juana is about 14 miles. The town of Tia Juana (Aunt Jane) is situated on both sides of the boundary line between the United States of America and the United States of Mexico. Here are the custom house of both republics. Having unwound and wound up the red tape satisfactorily to the Mexican republic, the traveler can continue his journey. The mines are about 90 miles from Tia Juana.

The road is excellent all the way except in one place between Vallecitos and San Rafael. Here for about ten miles there are a good many gulches. After leaving Tia Juana the first settlement is at Canacio valley, 15 miles. There are only one or two houses here. Fifteen miles further is the Valle de los Palmos. Here is a hotel, stables and corrals. This fertile valley is owned by a company, with Ex-Governor Eli Murray, of Utah, at the head.

Then comes Vallecitos (little valley), the manor of Ex-Governor George Ryerson, a Texan by birth, an American by descent, the predecessor of Governor Torres, and a resident here for 35 years. The road passes close to his flour mill, which is kept running on the wheat raised here. The road continues through the picturesque Burro Cañon into the Gaudalupe valley, the ranch of T. L. Flowers, an American who has lived here a great many years. Here the road forks, the right hand branch, returning to the coast, leads to Ensenada. At the south end of the valley are the ruins of the old mission of San Miguel.

The left hand road is followed to the mining town of Real del Castillo, in the San Rafael valley. At this town is an old stamp mill. Here Col. Theophilus Masac has a mining concession from the Mexican government, embracing an area of 115.82 square miles, or more than 74,000 acres. The road passes through Col. Masac's concession to the Santa Clara mining district, which adjoins it on the south. The stage coaches should make the trip from San Diego to Santa Clara in 25 hours. The route and the mines are plainly marked on the map on page 36, which was specially sketched for this book.

The best of it is that Santa Clara valley does not have all the gold mines of Baja California, as will be seen by reference to the map, which marks other known gold fields.

San Diego is reached from all parts of the United States by the Santa Fé railroad. The Pacific Coast Steamship Company have a line of steamers running there from San Pedro and San Francisco. The International Company's steamers make three trips per week between San Diego and Ensenada.

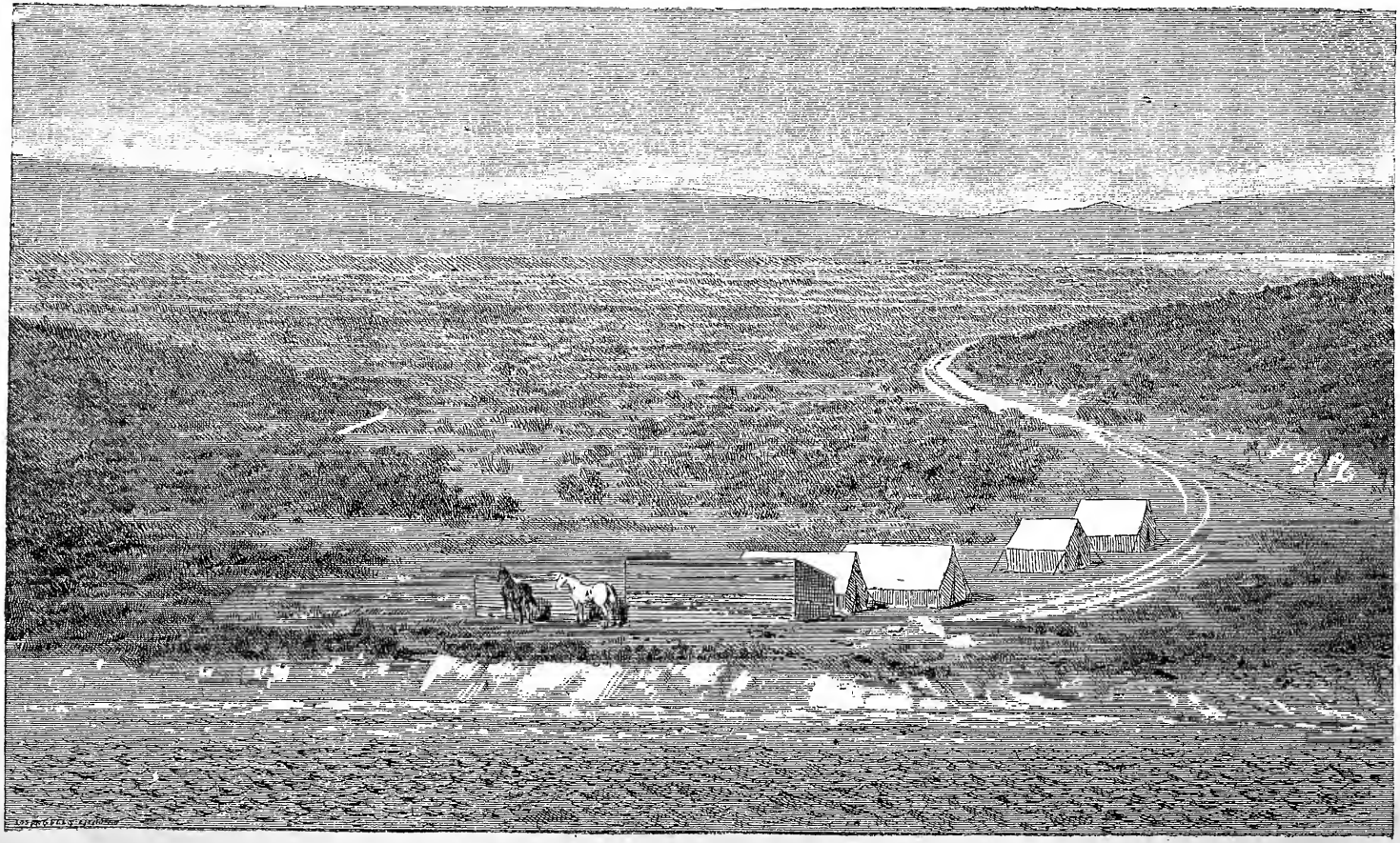
Ed. C. Burlingame of Los Angeles, has establ shed a line of freight teams between Ensenada and Santa Clara, and will give rates on transportation of goods.

A line of stages run daily from San Diego, via Tia Juana and Real del Castillo to Santa Clara.

Persons coming to the mines from El Paso or San Francisco take the Southern Pacific railroad to Los Angeles and then proceed to San Diego either by rail or steamer, direct to Ensenada by steamer.

TABLE OF DISTANCES.

From ENSENADA to—	MILES.
Santa Clara	42
Real del Castillo	30
San Rafael valley	25
Jocolitos via Real del Castillo	45
Juarez " " and Jocolitos	75
Camp National " " Hanson's	75
Socorro " " Valle Trinidad	160
Valle Trinidad " " Santa Catarina	110
Santa Catarina " " Sangre de Cristo	90
Mouth of Colorado river via Valle Trinidad	200
Valledares via Real and " "	140
Rosarito " " " " "	200
Agua Dulce " " " " "	250
" " " Santo Tomas and San Quintin	230
San Quintin overland	161
" " by water	110
San Pedro de Martir pine region	200
San Telmo	101
Camalu	121
Colnett	100
San Vicente Old Mision	66
San Isidro via San Vicente	81
" " " water	54
San Vicente valley and mesa	86
Salado	81
San Antonio valley	78
Santo Tomas	36
" " landing, by water	25
From SAN QUINTIN to—	
Rosario	38
San Fernando	98
Agua Dulce	150
San Carlos via Rosario and seashore	88
San Ramon	27
Camalu	40
San Telmo	60
Collnett	75
Valledares	75
Rosarito	68
San Pedro de Martir pine region	120
From SAN DIEGO to—	
Ensenada by water	67
" " land	110
Real del Castillo	100



SAN QUINTIN VALLEY, LOWER CALIFORNIA.—LOOKING EAST.

CHAPTER II.

MEXICAN REVENUE LAWS—THE FREE LIST OF THE GOVERNMENT—MEXICAN IMPORT DUTIES—THE FREE ZONE—MEXICAN EXPORT DUTIES—LIST OF PORTS (CUSTOM HOUSES) FOR THE COASTING TRADE—PASSENGERS AND BAGGAGE—HOW REVENUE OFFENDERS ARE PUNISHED—THE FREE LIST OF THE INTERNATIONAL COMPANY.

MEXICAN REVENUE LAWS.

While the tariff is a very simple question politically, it becomes very intricate and complex upon application because of the almost infinite differences in character of the many and various objects which it affects. That a tariff is necessary for a revenue or is protective to certain classes are propositions easily understood and to which common assent is readily given, but to know how much it costs to get across the national boundary line into Mexico involves either considerable study of the consular reports before hand, or direct application with the bill of goods in hand to the Mexican consuls. The latest revised lists of the Mexican tariff may be obtained by addressing a letter to the Secretary of State, Washington, D. C. The Mexican tariff is peculiar. Not only is there a national tariff, but there is also an inter-state tariff, different States having different rates. Besides there is a special duty for the Federal District (formerly known as the State of Mexico) and the Territory of Baja California. Even some of the cities have a tariff, while the Zona Libre (described elsewhere) has a very low tariff. The Mexican tariff laws are not uniform, neither are they always enforced with the same vigor.

The traveler who crosses the national boundary line into Lower California, goes into another republic, having a different government, laws and administration from those of the United States of America. The following pages have been carefully compiled from the latest published circulars on that subject, and will serve for general information:

The duties of the revenue officers of Mexico are surrounded by fully as much red tape as those of America. The better way for any who intend shipping or taking any goods into Lower California, is to apply personally to the Mexican consuls in Los Angeles or San Diego, where the latest information in a continually changing law can be obtained, and where the necessary legal requirements can be performed. The tariff is continually changing. Even now the present tariff is being revised. Below are the free lists as last published:

THE FREE LIST OF THE GOVERNMENT.

Animals of all classes, living, except altered horses; apparatus for extinguishing fires, with six charges of liquid; arsenic, white; asbestos, in powder; acids, sulphuric, chloro-hydric, phenic; anchors, with and without chains for vessels.

Bags, common, of all materials; barrels and pipes (casks), when empty; books and music, printed and not bound; boxes, common, of wood, nailed together or in pieces; bricks of refractory earth.

Cable, of aloe or hemp, measuring from three centimeters of diameter to 94 2-10 milimeters of circumference; caustic soda; chloride, bisulphide or trisulphide of lime; clay, sand and blotting sand; clocks for towers and public buildings; coaches and railway cars; coal of all kinds; cork, in bulk or in sheets; crucibles of all materials and sizes.

Eggs; emery, in powder or in grain; engines, steam, locomotives and other things necessary for building railways.

Firewood; fish, fresh; fodder, hay.

Glycerine, odorless; gold, silver and platinum in bullion or in dust.

Hops; houses of wood and iron, complete; hyposulphate of soda.

Iron and steel rails for railways; iron with hooks for making packages; iron hoops with rivets for the same objects; iron or lead tubing of all dimensions.

Knives, hatchets, scythes, sickles, rakes, shovels, pickaxes, spades, hoes and mattocks of iron or steel for agriculture.

Letters, plates, spaces, vignettes, type and other necessary articles for printing; lime (common), hydraulic lime or Roman cement.

Machinery and apparatus of all kinds not specified for manufacturing, agriculture, mining, the arts and sciences, and their separate parts whenever these cannot be used separately; masts for vessels; money, legal, of gold or silver.

Oars for boats; ores.

Periodicals and catalogues, printed; plants, living, and seeds for horticulture; plows and plowshares; poisons used in preparing skins; powder, wicks, fuse and explosive compounds for mines; pumice-stone.

Quicksilver.

Rags, paper clippings and pulp of all kinds for paper-making; refractory earth.

Saltpetre, whether nitrate of potash or soda; slate for roofing, from two to three millimeters in thickness; Spanish white; steel, bars of round or octagonal, for mines; stones, precious; sulphate of ammonia: sulphate of copper.

Tiles, earthen, of all kinds; tin, in plates up to forty centimeters in length by thirty-eight inches in breadth, not stamped or painted; timber, building.

Vaccine; vessels of all kinds when nationalized or sold.

Wire, barbed, with staples for fencing; wire cable, of iron or steel, of all thickness; wire, copper, insulated with any material for electrical lighting, whenever the diameter of the wire, by itself, is up to No. 6 Birmingham measure, and the destination of wire is shown; wire, telegraph and telephone intended for said purpose.

MEXICAN IMPORT DUTIES.

Following is a list of some of the more important articles for miners, carefully compiled from the last published report of the Department of State at Washington, D. C.:

COTTONS.

Name of Article.	Weight, Measurement or Number.	Rate of Duty.
Canvas, net weight, kilogram*		$ 65
Clothing, ready made, legal weight, kilogram		2 50
Collars and cuffs, net weight,	"	3 60
Corsets, net weight,	"	1 90
Cotton cloths, square meter*		11
Coverlets, blankets, etc., net weight, square meter		75
Cravats, net weight, kilogram		1 90
Curtains (cotton) except net	square meter	20
Elastic, of cotton and India rubber, net weight, 4 centimeters		70
Suspenders, legal weight, kilogram		65
Handkerchiefs, square meter		16
Shirts, net weight, kilogram		1 30
" linen, " "		$3 80@7 00
Socks, underclothing, etc., kilogram		1 75
Thread of all kinds, net weight, kilogram		1 60
Umbrellas, each		60

WOOLENS.

Brussels carpets, square meter	1 60
Woolen clothing ready made, net weight, kilogram	5 50
Woolen coverlets, square meter	1 70
Woolen underclothing, net weight, kilogram	2 10
Endless belting (felt or wool) for machinery, net w't, kilogram	06
Felt of wool (in pieces) net weight	25
Woolen gloves, net weight, kilogram	$2 00@4 00
Woolen underclothing net weight, kilogram	2 20
Umbrellas (woolen), etc., each	1 00
Woolen goods of all kinds, net weight, kilograms	$1 05@4 80

NUTRITIOUS SUBSTANCES.

Barley, gross weight, kilogram	04
Beer and cider in bottles, net weight, kilogram	30
Beer and cider in barrels, net weight, kilogram	20

*See table of metric system.

Bitters, net weight, kilogram	30
Brandies, " "	75
Butter, " "	25
Cheese, " "	15
Cinnamon, " "	1 10
Cloves, " "	65
Coffee, " "	10
Condensed milk, legal weight	25
Confections, " kilogram	1 55
Corn meal, gross weight, "	01
Crackers " "	15
Fish, dried, salt, etc., "	12
Fruits, dried, etc., net weight, "	10
Lard, net weight, kilogram	20
Molasses or honey, net weight, kilogram	08
Oats, gross weight, kilogram	01
Olive oil, net weight "	20
Onions, fresh, gross weight, kilogram	03
Pepper, net weight, "	25
Pickles, legal weight, "	50
Potatoes, gross weight, "	03
Preserves, legal weight, "	80
Rice, gross weight, "	08
Sardines, legal weight, "	15
Salt, table, gross weight, "	06
Sausages, net weight, "	25
Sugar, gross weight, "	15
Ham, net weight, "	25
Tea, " "	80
Vinegar, " "	06
Wheat, " "	05
Wine, " "	20

STONE WARE.

Bottles, empty, gross weight, kilogram	03
Crockeryware, etc., " "	15
Crucibles, " "	01
Demijohns, all sizes, " "	03
Gypsum, " "	12
Lime, " "	01
Mirrors, to 30 centimeters, gross weight, kilogram	25
Whetstones, gross weight, "	10
Window glass, all kinds, " "	25

METALS, ETC.

Alloy, gross weight, kilogram	1 25
Bars of steel for mines, cylindrical and octagonal, gross weight kilogram	01
Cable iron, gross weight, kilogram	01
Copper, pigs, " "	01
Cots, iron, " "	25
Furniture, iron, " "	25
" brass " "	30
Iron, pigs, " "	01
" rolled, sheet, etc., gross weight, kilogram	10

Iron of all qualities in bulk, bars, plates, etc., gross weight, kilogram	07
Knives, picks, pans, etc., gross weight, kilogram	01
Lead in blocks or sheets, " "	07
Nails of all sizes, " "	13
Needles, " "	35@95
Pens, steel, " "	95
Scissors, all sizes, " "	07 @35
Steel, " "	07
Tin plate, all sizes, " "	07@35
Tools, iron, brass, etc., " "	10
Tubing, all dimensions, " "	01
Wire, all classes, " "	10@2 50

NOTIONS.

Bellows, all kinds, gross weight, kilogram	10@30
Belts, not with gold or silver buckles, gross wt., kilogram	50@2 50
Brushes, gross weight, kilogram	30
Combs, all classes, gross weight, kilogram	25
Cork, in bulk or sheet, " "	07
Curtains, " "	35
Emery, powdered, " "	08
Flasks, all kinds, " "	30
Ink, " "	25
Lamp shades, " "	65
Lanterns and lamps all kinds, gross weight, kilogram	30
Lead pencils, gross weight, kilogram	20
Matches, " "	1 25
Oil cloth, " "	30
Sandpaper, " "	06
Sieves, " "	20
Sponges, all kinds, " "	30@1 25
Whips, " "	65
Wicks, " "	30

MACHINES, ETC.

Clocks, all kinds, gross weight, kilogram	45@1 25
Machines and apparatus of all classes, not specified, for industry, agriculture, mining, arts, etc., gross weight, kilogram	0½
Sewing machines, gross weights, kilogram	05
Watches, all kinds, each	50@14 00

CARRIAGES.

Vehicles of all kinds, each	$10 00@66 00

AMMUNITION.

Lead, gross weight, kilogram	07
Powder, for mines, gross weight, kilogram	01
" " arms, " "	1 10
Guns, all kinds, " "	82@1 25
Wicks and fuse for mines, gross weight, kilogram	01

WOODS, ETC.

Barrels and boxes, empty, gross weight, each	05
Casks, etc., " "	06

Cots, wood etc.,	"	"	16
Furniture, all kinds,	"	"	15@35

MISCELLANEOUS.

Blank books, gross weight, kilogram			96
Books,	"	"	1 00
Documents, all kinds, gross weight, kilogram			65
Paper,	"	"	07@65
Playing cards,	"	"	1 05
Belting (leather)	"	"	50
Boots, cowhide, pair			1 50
" calf,	"		2 50
Bridles, gross weight, kilogram			65
Gloves, net weight	"		3 25@6 00
Carriage harness, gross weight, kilogram			1 50
Leather, all kinds, net weight,	"		1 55
Shoes, pair			45
Acetates, all kinds, legal weight, kilogram			15
Acids,	"	"	25@1 10
Alcohol, net weight,		"	90
Cyanide of potash, legal weigh		"	08
Drugs,	"	"	75
Indigo, gross weight,		"	1 35
Brooms,	"	"	03
Dynamite,	"	"	01
Geldings, each			40 00
Hats, all classes, each			25@1 05
Ice, gross weight, kilogram			01
Petroleum, gross weight, kilogram			01
Soap,	"	"	18
Tobacco, net weight,		"	68@2 75
Tents, gross weight,	"		20

It will be well to remember that these rates are subject to constant change, and that many of these things are free of duty to the colonists of the International Company of Mexico.

THE FREE ZONE.

The free zone extends along the whole northern frontier of the Mexican republic, for a distance of twenty kilometers (12½ miles) south of the boundary line between the American and Mexican republics. The concession of the free zone consists in certain prerogatives that goods imported into it enjoy in their dispatch and traffic. Goods imported into the free zone, if not dispatched immediately, may be deposited in warehouses after going through all the numerous forms of red tape, and being sealed. If taken out within six months the duties of the tariff only will be charged; if taken out after that time five per cent additional to the duties themselves shall be paid. Upon the withdrawal of goods from the warehouse for consumption in the free zone only three per cent of the total of duties for importation shall be collected, of which 1.75 per cent. goes to the national treasury and 1.25 per cent. for the local municipality where the importation is made. Goods may be transported anywhere in the free zone under certain limited permissions. Goods may be internated * from the free zone under certain rules, and a cash payment of the duties of the regular tariff.

The object of the free zone in having such a low tariff is two fold: first, to discourage smuggling; and, second, to encourage settlement by the supposed resultant correspondingly low prices of the necessaries of life, a mistake made upon an error wide spread by college professors who study books and not markets.

MEXICAN EXPORT DUTIES.

All national products, effects and manufactured articles are free from duty on their exportation, with the exception of those which are or may be especially taxed by laws.

The exportation of national antiquities is prohibited.

The re-exportation of foreign goods, without payment of fiscal duties, shall be allowed only in the case of those goods that are deposited in the warehouses established by the government in the maritime and frontier custom-houses of the Mexican republic.

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* From the Spanish internacion, meaning to introduce into the interior.

The same general red tape applies to exportation that does to importation.

The law of November 3, 1880, as modified by various circulars, remains in force and imposes the following duties:

Gold in whatever form, one-fourth of one per cent.

Silver, in whatever form, one-half of one per cent.

Coined gold and silver having already paid at mint is exempt.

Orchil, $10 per ton of 1,000 kilos.

Wood for construction and cabinet work, $2.50 per esterio (31.34 American cubic feet).

PORTS FOR THE COASTING TRADE.

The following are the ports for the coasting trade in Baja California: Mulejé, San José del Cabo (La Paz custom house), Isla de Guadalupe (Ensenada de Todos Santos custom house), Bahia de Magdalena and Tia Juana.

PASSENGERS AND BAGGAGE.

The following is quoted from Sutton's Tariff Laws of Mexico, edition of 1885:

Passengers are obliged to present their baggage to the custom-house inspector. If they have dutiable articles, they shall also have a written manifest.

Clothing for personal use, if not excessive, and whose quality is in the judgment of the administrators, according to the circumstances of the passengers, shall be considered as the baggage of a passenger, and free of duty.

The objects which they wear, or for their use, as a watch, chain, buttons, cane, etc., and one or two fire arms with their accessories and one hundred charges.

Professors or artisans can carry free from duties the instruments or tools most essential or indispensable to exercise their profession or trade.

The administrator can permit with each male passenger, if adults, the introduction free of duties, 99 cigars, 40 packages of cigarettes, and half a kilogram of snuff or chewing tobacco.

A circus or opera troupe are also permitted to introduce free of duties their costumes and scenery.

The duties on household furniture used is to be diminished according to the damage.

Personal searches shall only be made in exceptional cases, and by another of the same sex, when there is very specific information, and shall not be made without advising the administrator.

Passengers shall pay nothing for search of baggage, except duties and sealing.

The search of baggage shall be made in a convenient and secure place gradually, and of each passenger, one after another, without offensive distinction and strictly in turn. The administrator shall be careful to hasten service when possible, so as not to detain them longer than necessary.

It is prohibited under the strictest responsibilities of subordinate employes to take the private papers of the passengers, titles of profession or property, books, documents of accounts, etc. Their examination shall be limited to what is indispensable to ascertain that there be no dutiable effects.

Administrators of custom houses shall take care that their employes treat passengers with politeness and urbanity; make them understand before the inspection of their baggage the obligations which custom house laws impose upon them; not permitting subordinate employes to make inspections alone, but that some superior officer superintend them.

Passengers shall not be permitted to commit faults of attention or respect either to the ground on which they stand or the Mexican government, and for committing such faults they can even be consigned to the local authority for merited punishment.

Passengers may be permitted to rearrange or revise their baggage or effects.

Custom house inspectors shall take care to have this chapter (Chapter IV) printed in French, English, German and Italian, in separate copies for each language, and in each one all the Spanish text, that it may serve as a notice to passengers who come to the country. Care shall be taken to fix these notices in public places, principally where the inspection of baggage is made.

If amongst the baggage of a passenger entering only the Zona Libre (free zone) there should come any package of goods whose value exceeds $100, their owner must bring them, covered by their respective consular invoices, in order that all the proceedings may be taken in this case that are specified for importation.

The inhabitants and travelers along the American frontier are permitted to cross a horse or carriage without payment of customs duties, provided that the person who brings them comes with the intention of returning with the horse or carriage the same or the following day.

The requisites for exportation shall not be required of the inhabitants of the Zona Libre who may cross a gelding or a carriage to American territory only for a little while, nor shall customs duties be collected for said horses or carriages upon their return to the Zona Libre.

The owners of carts or carriages that pass from the American territory to the Zona Libre for a certain period of time must solicit from the administrator of the custom house the respective permit, securing satisfactorily the duties of importation, that, in case they have not been returned to the

place of departure at the expiration of the specified term, they may pay the corresponding duties. Said terms shall in no case exceed six months.

HOW REVENUE OFFENDERS ARE PUNISHED.

The violations of the Mexican tariff law are classified into smuggling, fraud, contravention and error, for which the penalties are confiscation, payment of double duties, fine, imprisonment, and, if of officials, suspension, discharge, disqualification and dishonor. Punishment is also provided for bribery. The penalty for smuggling is a total loss of goods and from six months to five years' imprisonment; accomplices get half the penalty. The penalty for fraud is disqualification and dishonor and from six months to five years' imprisonment for Mexican officials; others, from six months to four years, together with the payment of double duties upon the goods falsified, and a fine of from $200 to $3,000. The penalty for bribery is from six months to four years' imprisonment, a fine equivalent to double the bribe, discharge and disqualification for an official, and the private individual suffers the same fine and imprisonment. Contraventions are punishable only by amendments, and errors are punishable only by fines.

FEES.—For goods less than $100 in value no papers are necessary, but for larger amounts a written manifest must be had, made out by a custom-house broker, and stamped and verified before a Mexican consul, costing from $25 to $40.

FREE LIST OF THE INTERNATIONAL CO.

The following list of articles are allowed free to colonists by the Company, until the Government of Mexico furnishes the free duty list:

1, fresh garlic; 2, peas; 3, rice; 4, oats in grain; 5, sugar; 6, coffee; 7, seed barley, wheat and all other seeds; 8, onions; 9, beans; 10, chicken peas; 11, bacon and salt meats not canned; 12, lentils; 13, corn; 14, lard; 15, potatoes; 16, table table; 17, tea of all kinds; 18, geldings; 19, brooms; 20, working tools of all kinds; 21, stoves (only one for each family); 22, bricks; 23, used furniture; 24, agricultural implements; 25, machinery of all kinds and lumber for building; 26, corn meal and oat meal; 28, steel for repairs; 28, ropes; 29, syrup; 30, pastes, maccaroni, etc.; 31, tents; 32, baking powder; 33, wagons; 34, harness (only when brought together with horses and mules; 35, condensed milk; 36, dried fruits; 37, nails.

The quantities allowed for each person per month, are as follows:

Oat or corn meal, 5 pounds; sugar, 15 pounds; coffee, 10 pounds; beans, 15 pounds; corn, 10 pounds; lard, 10 pounds; salt, 6 pounds; tea, 2 pounds; bacon 15 pounds; paste, maccaroni, etc., 1 pound for each family; syrup, two gallons for each family; baking powder, 1 pound for each person; condensed milk, two cans for each person.

CHAPTER III.

ORIGIN OF MEXICAN MINING LAWS—POWERS OF STATES—RIGHTS OF FOREIGNERS—OWNERSHIP OF MINES—HOW TO DENOUNCE—EXTENT OF GROUND GRANTED—DEGREE OF INCLINATION—PLACER MEASURE. FORFEITURE—LAW OF JUNE 6, 1887—FEES.

MEXICAN MINING LAWS.

The mining laws of Mexico have been translated into English by several eminent legal authors among whom there is none more competent than Frederic Hall, Esq., of Los Angeles, by reason of natural ability, thorough education, and long experience in Mexico. Hall's Mexican Law has a national reputation. Rockwell and Hamilton are also authors in that line.

ORIGIN.—The Mexican mining laws are descended from the Roman and Spanish laws.

The Supreme Court of Mexico has held that the several states have power to legislate on mining. The states have generally availed themselves of this privilege. It is thus easy to ascertain in any state the proper authority to whom the denouncer must appeal in order to obtain his rights and title by virtue of a denouncement.

Mines may be owned and worked by foreigners who may divide their mines into as many shares as they deem proper.

As the fee (perpetual right) in mines is not granted to the denouncer they cannot be sold on judgment.

Mining districts are provided for by law. The miners vote for the officials of the district.

All mines are the property of the state. Mines are held on two conditions:

First—That the grantees pay whatever may be demanded of them by the state.

Second—That they operate the mines according to law.

HOW TO DENOUNCE.—The discoverer acquires three portions (pertenencias) in the principal vein in one or more mineral mountains wherein no mine or shaft has been opened, and a portion in new veins. He must fix on and make his portion within ten days. He may hold two portions (pertenencias) in a new vein in a mountain known as worked, if specified within ten days. Corporations may have four portions.

To denounce a mine, the discoverer must present a written statement

to the qualified officer of the district, or if none is there, to the nearest thereunto. The statement must specify:

1. The name of the discoverer.
2. The names of his associates, if any.
3. The place of his birth.
4. The place of his habitation.
5. His profession or employment.
6. The most particular and distinguishing features of the tract, mountain or vein of which he claims the discovery.

All of which must be noted in a register by the district official as well as the hour in which the discoverer presents himself. The written statement is then returned to the discovere, and notice of its object and contents are affixed to the doors of the church, the government houses or other public buildings for the sake of notoriety.

Within ninety days the discoverer shall cause to be made in the vein or veins so registered a pit of a yard and a half in diameter or breadth and ten yards deep. It is then in order for officials to visit the mine to determine the course, direction, size, inclination and character of the vein, and its mineral, of all which an account is taken, and added to the statement in the district register. The discoverer's portion is then determined and possession is immediately given him, and he incloses his determined portion by stakes at the limits; after which an authentic copy of the proceedings is delivered to him as a corresponding title.

Within the ninety days only will judgment be given to the best claimant.

In case of doubt as to who is the first discoverer it is decided in favor of the one who has first registered.

Abandoned mines may be denounced in much the same manner.

Placers are denounced in the same manner as mines or veins, the same being understood of all species of metal.

No employés can denounce a mine within a thousand yards of his employer's mine, but they have permission to do so provided their employers shall ratify the denouncement.

No one shall denounce a mine for himself alone, if he has previously had partners in the transaction. The denouncer shall declare such partners in his written statement, under penalty of losing his share thereof if he fail so to do.

Extent of Ground Granted.—On the course and direction of a vein may be granted to every miner 200 meters taken on a level, and measured in a square.

If the vein is perpendicular to the horizon a hundred level meters shall be measured on either side of the vein, or divided on both sides, as the miner may prefer. In all other cases, where there is greater or less degree

of inclination (dip), the measurement shall be made according to the following rule:

If to one meter perpendicular the inclination be from three fingers to two palms, the same hundred meters shall be allowed for the square, as in the case of the vein being perdendicular.

DEGREE OF INCLINATION.—If to the said perpendicular meter there be an inclination of—

2	palms	and	3	fingers,	the	square	shall	be	112½	meters.
2	"	"	6	"	"	"	"	"	125	"
2	"	"	9	"	"	"	"	"	137½	"
3	"	"	0	"	"	"	"	"	150	"
3	"	"	3	"	"	"	"	"	162½	"
3	"	"	6	"	"	"	"	"	175	"
3	"	"	9	"	"	"	"	"	187½	"
4	"	"	0	"	"	"	"	"	200	"

So that if to one perpendicular meter there correspond an inclination of four palms, which are equal to a meter, the miner shall be allowed 200 meters on the square on the declivity of the vein, and so on without rest. The 200 meters square cannot be exceeded.

PLACER MEASURES.—With regard to placers, the portions and measures shall be regulated by the respective territorial deputations of miners, attention being paid to the extent and richness of the place and the number of applicants, discoverers having the preference.

Professional experts are required to be employed in assisting in working the mines. Once a month or two months a mining professor must inspect the mines. Tunnels and shafts must be kept in proper repair.

FORFEITURE.—Whosoever during four successive months shall fail to work any mine with at least four paid workmen, shall loose his right in said mine, and any other person may denounce the same, pestilence, famine and war within sixty miles, alone preventing. The four months disuse shall not forfeit the mine at once, but it is liable to denouncement before the miners' tribunals.

Notice of abandonment must be given, so that other persons desirous of taking the mine may have opportunity to do so legally. A mine thus abandoned, if the creditors are also notified, does not remain liable for former claims when it is in the hands of a new possessor.

The refusal of a partner to pay expenses for four months works a forfeiture of his share. If he pays his share in full before the end of that time he saves his share.

A mine may be forfeited if not worked, but state legislation may extend the time for non-working. By presenting a petition showing good reasons why a delay of work is requisite for the owners, the same will be granted.

Gold and silver must not be weighed with steelyards.

All the working mines must keep their tools and utensils marked, and if any one shall purchase them from any workman, or receive them in pledge, he shall pay for them double value.

Mining property only is liable for supplies; neither the miner nor his other property is responsible. Contractor-debtors have preference in order of priority.

For no cause shall any mine in litigation be closed, but an intervenor may be appointed for the satisfaction of the plaintiff. Work in a mine can only be suspended when in a ruinous condition.

The machines, iron-work, tools, animals, structure, materials or any of the necessary provisions of a mine, nor the mine itself, can not be enjoined or sold on execution, but the execution shall be levied on the metal produced.

The cost of working a mine under attachment shall be paid from the first proceeds.

The roll of wages must be paid weekly in coin only. The rates of wages are established in each Real or mining district.

Forests on the public domain in the neighborhood of the mines shall serve them for supplies for timber and fuel.

All contracts for mining supplies must be in writing; if not acknowledged before a notary or witnesses, they shall not be judicially enforced.

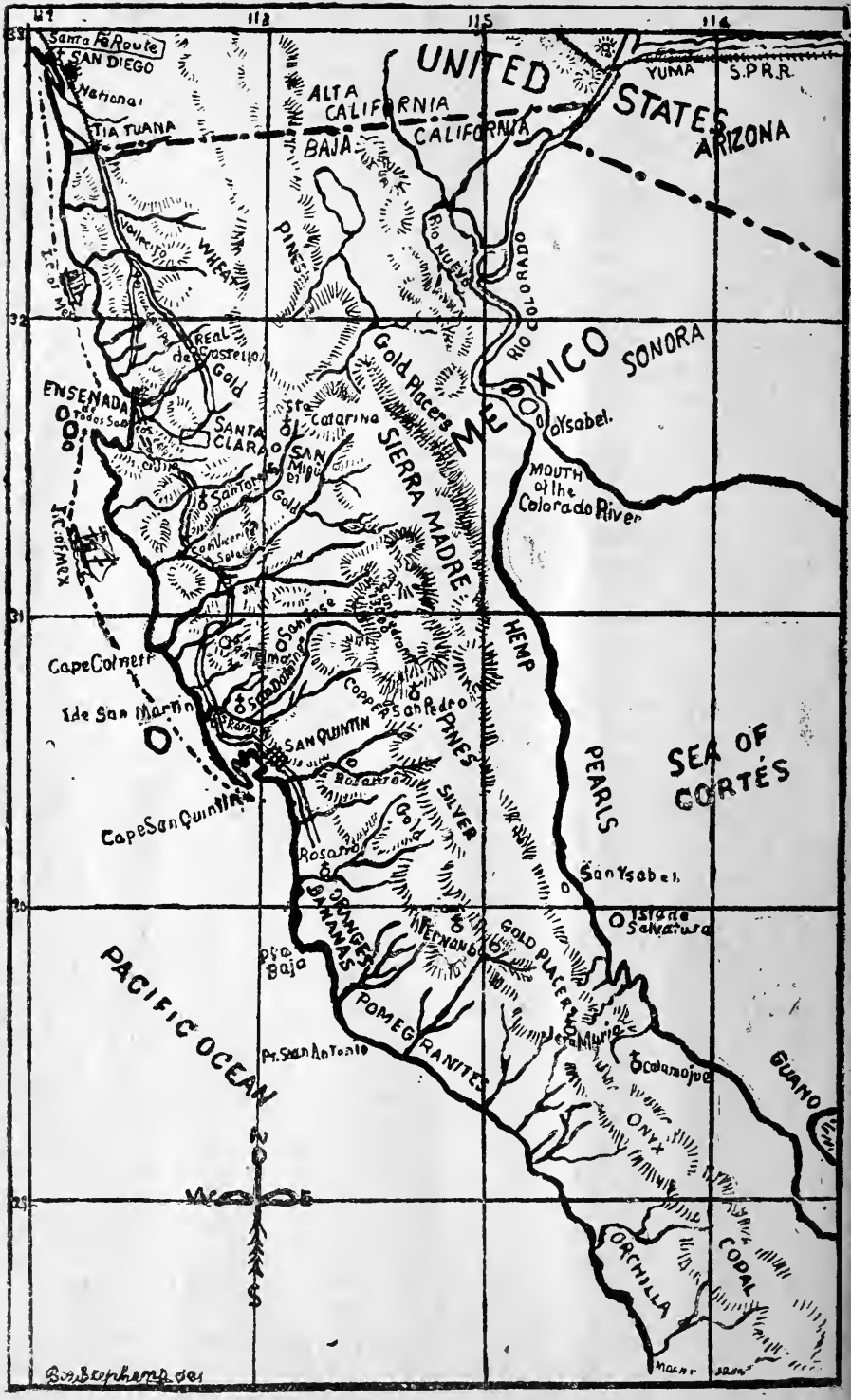
In the event of seizure and sale, persons who advanced working funds are preferred creditors.

FEES.—Decisions or resolutions for admission of denouncements, recording documents, concession of maintenance of possession for adjudication, $1.

Mining deputies are allowed $2 per hour or fraction thereof for attendance.

Giving possession, $1.50; surface examination or inspecting one or more claims, $5; interior examination, $5 for each 100 meters, and $1 for each league traveled.

The officials of the Santa Clara district require a fee of $19 for giving possession.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Santa Fe Route
SAN DIEGO
National
TIA TUANA
Valle de Mex
Valle de Trinidad
WHEAT
UNITED STATES
YUMA
S.P.R.R.
ARIZONA
ALTA CALIFORNIA
BAJA CALIFORNIA
PINES
Rio NUEVO
RIO COLORADO
MEXICO
SONORA
Real de Castello
Gold
ENSENADA
Todos Santos
SANTA CLARA
Sta Catarina
SAN Miguel
Gold Placers
SIERRA MADRE
Ysabel.
MOUTH of the Colorado River
Santo
Gold
Copper
Silver
Cape Colnett
Ide San Martin
Cape San Quintin
SAN QUINTIN
Rosario
Gold
Copper
San Pedro
PINES
SILVER
HEMP
PEARLS
SEA OF CORTÉS
San Ysabel
Isla de Salvatura
ORANGES
BANANAS
Pta Baja
FERNANDO
GOLD PLACERS
Sta Muria
Calamajue
PACIFIC OCEAN
Pt. San Antonio
POMEGRANITES
GUANO
ONYX
ORCHILLA
CODAL

MINING LAW ENACTED BY THE GOVERNMENT OF MEXICO, JUNE 6, 1887.

The President of the Republic has seen fit to issue the following decree:

Porfirio Diaz, Constitutional President of the United States of Mexico, to its inhabitants—Greetings:

That the Congress of the Union has seen fit to decree the following:

The Congress of the United States of Mexico decrees:

ARTICLE 1. From the proclamation of this law, there shall be free from all taxes, federal, local and municipal, excepting the stamp tax, all mines of mineral coal in all its varieties, mines, petroleum, iron and quicksilver, as well as the minerals produced by them; domestic, wrought and pig iron, in all its different shapes, including rails, and domestic quicksilver when a net product of reduction works from which it is extracted.

ART. 2. These shall be free from inter-state duty and any taxes whatsoever, irrespective of their names, the circulation in the interior of the republic of gold and silver ore, dust, bars or coin, as well as that of other metals and all products of the mines.

ART. 3. Quicksilver, regardless where it comes from, shall be exempt from any tax whatever, irrespective of its name.

ART. 4. Besides the federal duty on coinage, the mines not excepted in Article 1, and their products, shall be subject to a single tax only, which shall be fixed upon the value of the metal or the substance extracted without deduction of cost, and which shall never exceed two (2) per centum of such value.

ART. 5. The tax mentioned in the foregoing article shall go to the state in which the mine may be located, or to the federal government should the federal district or in the territory, for which purpose the amount of such ax, within the prescribed limits, shall be annually fixed by the respective legislatures of the states, or by the federal congress as the case may be, taking in consideration the needs of their exchequer and the protection which they are bound to extend to their mining industries.

ART. 6. Reduction works and all kinds of metallurgical establishments, when running, shall pay to the state in which they are located, or to the mine be in the federal government should they be in federal district or in the territories, as sole tax, which can never be increased, an amount up to six per thousand of the value of the establishments, including their machinery.

ART. 7. The federal government shall receive, in conformity with established rules, twenty-five per centum of the taxes, which according to the foregoing articles, went to the states.

ART. 8. Any other tax of whatever nature, except the stamp tax, and regardless of the name by which it may go, upon the extraction, production, or net profits of the mines, the benefits, production or revenues derived from

metallurgical establishments, the capital invested in mines and reduction works, shares and title papers of all kinds of mines and metallurgical establishments, and deeds transferring ownership of mining properties and reduction works, and shares which they represent, are positively prohibited by this law.

ART. 9. The states are forbidden to collect taxes upon the denouncements, the granting of possession, and other steps necessary for the acquisition of mining properties and reduction works, and upon the organization of mining corporations and the issuing of deeds and shares.

ART. 10. The Executive is hereby authorized to celebrate contracts granting special franchises and ample concessions, without prejudice to third parties, to companies guaranteeing the investment of capital in mining industries, fixing the extension of the zone given to them for exploration, with the amount of the capitals invested, the nature of the mineral deposits, and the character of the locality, subject to the following general rules:

A.—The duration of the franchises and the special concessions shall in no case exceed ten years.

B.—The minimum capital to be invested within five years in the exploration shall not be less than two hundred thousand dollars ($200,000).

C.—This capital shall remain exempt during ten years of every new federal tax except stamp tax.

D.—The maximum number of mining claims that can be conceded in ordinary cases shall be twenty (20), united or separate, graduating their numbers according to the rules fixed by the Department of Public Works, in proportion to the capital, character of the deposit and nature of the locality; giving the company in all cases the most ample liberty to work one or any of their mining claims, employing not less than twenty (20) workingmen.

E.—Only in cases of new discoveries or the restoration by mineral districts, the number of claims which can be conceded to a company, can be increased by one-half of the above mentioned number of claims according to circumstances.

F.—The dimensions of these mines shall be subject to the stipulations of the present mining code, except in cases of gold placers, which shall for these companies be construed of a claim of irregular deposit.

G.—Of the twenty claims mentioned in fraction "D" and the thirty mentioned in fraction "E," there cannot be claimed in a single vein more than ten in the first case and fifteen in the second adjoining or interrupted, except in case there should be only a single vein in the mining district, in which case all these claims can be located therein.

H.—These mining operations can be protected by the Department of Public Works in cases of special gravity, duly proven, by special extension of time up to two years, which maximum can never be exceeded.

I.—This extraordinary grace which cannot be extended, cannot be granted under any pretext whatever more than once; but other extensions can be conceded as provided for in the stipulations of the mining code. Neither the extraordinary extension of time nor any other provided for by the mining code can be considered a cause to extend the ten year's duration of the respective contract.

J.—The Department of Public Works shall authorize the companies in case it should be deemed convenient to sub-divide and transfer partially the concessions of these contracts, subject to previous approval, and on condition that the two mining companies accept their proportion of the respective obligation.

K.—All the companies, upon terminating the duration of the corresponding contract, shall have the rights and obligations which the mining code prescribes to the companies.

ARTICLE 11.—For a term of ten years there shall be exempt from federal taxes, excepting the stamp tax, all establishments dedicated to wine culture, silk culture and pisciculture. To be entitled to such exemption, these establishments shall subject themselves to the conditions contained in the respective dispositions.

ARTICLE 12.—The Executive is hereby authorized to contract with railway companies for a freight reduction upon national products destined for the services which they may have performed in conformity with this article.

B.—The Treasury department and the Department of Public Works shall dictate, two months before the beginning of each fiscal year, the necessary measures which may entitle the exporters who may comply with them to enjoy the privilege thereby accorded to them.

C.—The products of exportation destined to profit by these reduced rates, shall be divided in four classes, into which they shall be placed every two years by the Executive in proportion to the importance which they may require, and the protection which they may demand, such classification to be published in advance.

TRANSITORY ARTICLE.

From July 1st, 1887, the dispositions of this law relating to the state mining taxes shall go into effect, for which purpose the states shall dictate the necessary measures.

Mexico, May 25, 1887.

JESUS FUENTES MUNIX,
Speaker of the House of Representatives;
FELIX ROMERO,
President of the Senate;
ROBERTO NUÑEZ,
Secretary of the House of Representatives;

ANTONIO ARGUINNIS,
Secretary of the Senate.

And therefore I order this law to be printed, published, circulated, and duly complied with.

Given in the Executive Palace in Mexico, on the 6th day of June, 1887.

PORFIRIO DIAZ.

To General Carlos Pacheco, Secretary of State and of the Department of Public Works, Colonization, Industry and Commerce—Present.

And I communicate this to you for your knowledge and the corresponding effects.

Liberty and Constitution, Mexico, June 6th, 1887.

[Signed:] PACHECO.

CHAPTER IV.

A BEAUTIFUL PENINSULA — TOPOGRAPHY — CLIMATE — POPULATION AND WEALTH—HISTORY—THE MISSIONS—RESOURCES—INTERNATIONAL COMPANY OF MEXICO—THE COLOPHON (KALIFORNIA) OF THE WORLD.

LOWER CALIFORNIA.

"Si quæris peninsulam amænam, circumspice." "If thou seekest a beautiful peninsula, behold it here." So sang a poet of Old Italy, and truthful is the same song of that New Italy—the peninsula of California. The first known of California it has remained the longest unknown.

TOPOGRAPHY.—The peninsula is 750 miles long, and is from 30 to 150 miles wide, with an average width of 75 miles and has an area of about 57,500 square miles. It lies between 22° 52′ and 32° 20′ parallels of north latitude, and between 109° 53′ and 117° 10′ longitude west of Greenwich. It extends over nine degrees of latitude north and south, and over seven degrees of longitude east and west. Its general trend is northwest and southeast. The Sierra Madre (mother mountains) constitute the backbone of the peninsula, and is the same range which in Southern California is divided northward into the Coast Range and Sierra Nevada. The Sierra Madre are of granite formation. Entering the peninsula from the north they hug close to the gulf or eastern shore till nearly two-thirds of the way down, when they trend further westward till they get about the middle of the peninsula, which line they keep till they disappear in the ocean in the rocky point of Cape St. Lucas. Their height is never less than 3,000 or 5,000 feet above sea level, and some long mountains, like San Juan or San Pedro de Martir, are over 10,000 feet high, and reach the eternal snow line. The latter mountain is said to have a summit area of 90x30 miles, with several peaks from 13,000 to 15,000 feet high.

The eastern slope is short and steep to the gulf. There is little rain fall and streams are few. The climate is arid; the country and products are the same as the Mojave and Colorado deserts in Southern California.

The western slope consists of a series of descending mesas, or table lands, to the ocean. Between the main backbone of the peninsula and the ocean are several smaller but unimportant ranges. The western slope is well watered, as many as twenty-seven large streams flowing into the ocean between San Diego and Viscaino bay. The soil is a decomposed granite mixed with dessicated vegetable matter, varying in color as it may be mixed with different minerals, and produces everything known in semi-tropical climes.

Trees grow almost everywhere, particularly on the mountains. Oaks are found from eighteen inches to four and a half feet in diameter. San Pedro de Martir mountain alone has one million acres of pines on its sides. Sycamore, cottonwood, elder, willow, ash and cedar are common.

There are several islands along the shore of more or less importance.

The eastern shore is sandy and has few harbors. The western shore, except between San Quintin and Viscaino bay, is bold and rocky, and has some of the finest harbors in the world, notably those of San Quintin and Magdalena.

Climate.—The climate east of the Sierra Madre is like that of Indio or Yuma. Along the Pacific Coast it is a little warmer than at San Diego or Santa Barbara, as the temperature of the sea water is from one to three degrees higher. From twelve to thirty miles back from the coast the climate is much the same as at Los Angeles. Along the foot-hills of the Sierra Madre it is almost the same as at San Bernardino. At San Quintin the mercury has never been known to go above 90° nor below 40°f.

The rainfall is abundant, ranging from 18 to 40 inches per year.

Population and Wealth.—The population of the peninsula consists of about 25,000 Mexicans, having about doubled in the last 40 years. A majority of the population is in the southern part of the peninsula on account of the pearl fisheries and ocean traffic. The aborigines were nearly all killed off by the syphilis and fire water introduced by the Spanish, the same as the Americans have done among the Indians in the United States. The urban population is estimated as follows: La Paz, 10,000; Muleje, 3,000; San José, 3,000; Ensenada, 3,000.

The wealth, personal and real, is estimated at $3,000,000.

No survey, census or assessment of the peninsula has ever been made.

Lower California is a territory of the Mexican republic, and is under the direct control of the federal government.

History.—Discovered by Fortun Ximinez, a Portuguese pilot in the employ of Cortez, A. D. 1533. Named California by Francisco Preciado, the historian, because of a supposed relation to an island of that name described in the "Sergas de Esplandian," a very popular novel of those days. The ingenius author located his "island of California" at the end of the world "very

near the gates of the Terrestrial Paradise." California, or Kalifornia, is the German form of the Spanish "Colofonia" from the Greek "Colophon," a city of Ionia, whose people were proverbially hindermost. Hence the "colophon" (that is the date, residence and name of a printer or publisher) was always put at the end of a book, before title pages were introduced. The author of the Sergas appropriately chose this name for his fancied finisterre.

Cortez failed in several efforts to plant colonies along the gulf coast.

The Jesuits established missions in missions in Lower California from A. D. 1697 to 1757, a period of seventy years, when they were banished by the government.

The Franciscans with the renowned Junipero Serra at their head, succeeded the Jesuits, and established missions, and ruled the land from 1767 till the secularization of the missions in 1833, about sixty-six years. Following is a list of the missions established in Lower California:

MISSION.	FOUNDER.	DATE.	LOCATION.
1. Loreto	Jose Maria Salvatierra	Oct. 25, 1767	25°29′ N. L.
2. Dolores Del Sur	" " "	Jan., 1699	24 30
3. S. F. Xavier de Vigge	Fco. M. Piccoli	March, 1699	25 30
4. Sta. Rosa de Muleje	Juan M. Basualda	1705	26 50
5. S. Luis Gonzaga	Juan Ugarte	1712	25
6. S. José Commondu	Julian de Mayorga	1708	26
7. L. Purisima Concepcion	Nicolas Tamaral	1718	26
8. Nra. Sra. Gaudalupe	Ugarte & Helen	1721	27
9. San Ygnacio	J. B. Luyando	1728	28
10. Dolores Del Norte			29
11. San José del Cabo	N. Tamaral	1730	23
12. Todos Santos		1737	23
13. Santa Gertrudis	Fernando Consag	1751	29
14. S. Fco. Borxas	W. Link	1762	28 40
15. Santa Maria	V. Arnes	1767	29 40
16. San Fernando	J. Serra	1769	31
17. Rosario	By Dominicans	1774	30 25
18. San Domingo	" "	1775	30 52
19. San Vicente Ferrer	" "	1780	31 30
20. San Tomas	" "	1790	31 52
21. S. Pedro de Martir	Cayetano Pallos	May 28, 1794	31 50
22. San Miguel	Valdellon & Lopez	1782	32 10
23. Santa Catarina	José Lorient	May 18, 1797	31 20

The Jesuits in 1767 left 7,495 Indian converts, who were totally destroyed by the ravages of syphilis, small pox and measles, the last one dying in 1825. In 1787 the Dominicans had only 3,015 people in the missions. The missions were secularized in 1833. In 1867 there were probably 500 Indians about the old missions, and not over 2,000 in the whole peninsula.

In 1804 Alta (Upper) and Baja (Lower) California were made separate provinces.

In 1848 three companies of Stevenson's regiment captured La Paz and held the peninsula till the Mexican war was over.

In 1853 William Walker, the filibuster, with an armed force from San Francisco, captured La Paz, and set up the full-fledged Republic of Lower California, which was soon absorbed by his Republic of Sonora. Suffering from various defeats he retreated up the peninsula to San Diego.

In 1859 President Buchanan negotiated with the Mexican government for the purchase of the peninsula for $15,000,000, but the civil war broke it off.

In 1867 the "Lower California Company of New York" undertook to colonize the peninsula but failed. Ben. F. Butler, Ben. Holladay, Sam. Brannan, Caleb Cushing and W. G. Fargo were among its members.

The International Company of Mexico was organized in 1885 for the same purpose. Among its members were E. T. Welles, L. R. Huller and George H. Sisson. Its concession has been turned over to a new management, with B. Scott, Esq., of Ensenada, as general manager. It has a concession for all the public domain on the peninsula north of the 28th parallel.

The title of the International Company is one in fee simple from the Mexican Government, which is pledged to warrant and defend the conveyance so made to the International Company, and is pronounced by the highest Mexican authority to be absolute and conclusive.

By its efforts flourishing colonies exist at Ensenada, Colnett and San Quintin. A railroad coast survey has been made between San Diego and Ensenada.

Resources.—The gold fields of Lower California do not alone yield golden metal but golden cereals and golden fruits. Citrus and deciduous fruits, cereals, the banana, plaintain, date palm, cotton, tobacco, orchilla, yucca, hemp, flax, cattle, fish, game, guano, etc. In fact, all the semi-tropical fruits grow here luxuriantly. Following were the exports of the peninsula for 1857 according to official Mexican figures:

Hides, 13,000 pieces, $32,500; salt, 2,000 tons, $12,000; cheese, 100,000 pounds, $8,000; brown sugar, 29,000 pounds, $11,000; dried figs, 32,500 pounds, $1,300; raisins, 28,500 pounds, $2,200; soap, 2,610 pounds, $2,610; wine, 54 barrels, $540; dried dates, 20,000 pounds, $1,200; oranges, 22,000 M, $220; salt fish, 1,150 pounds, $96; Brazil wood, 150 tons, $3,000; silver ore, 250 tons, $5,600; silver metal, 2,000 marks, $16,000; gold, 80 ounces, $1,120; tortoise shell, 300 pounds, $6,000; pearls, $21,750; mother of pearl, 495,700 pounds @ 6 cents, $29,740.

A total of about $155,000. In 1866 the exports had increased to $1,000,000, and they have steadily increased since.

The pearl fisheries are on the southeastern shores of the peninsula and are controlled by a monopoly. These fisheries have yielded some of the finest pearls in the world, several as large as pigeon eggs, which adorn the royal regalias of Europe.

Copal.—In the northern central part of Lower California there is an extensive copal forest, where the copal tree flourishes. Here hundreds of tons of the resinous substance are scattered over the earth, some hardened

with age and of a dark color; that of a lighter color is of more recent formation, while bunches of the resin still adhere to the trees, which is only partially hardened, and is nearly pure white. From the substance of the copal tree is manufactured the famous copal varnish.

ONYX.—The quarry of San Borjas, just south of the 29th parallel of latitude, furnishes that brilliant onyx known as chalcedony. The largest slabs of onyx known in the world were taken from this quarry and adorn the altar of the church there. They are three feet wide and are beautifully striped. This quarry was re-discovered by Don José Moraga, of Santa Barbara, while working a gold mine near there several years ago.

When Bayard Taylor was sailing up the Sacramento river in a whale boat, in 1849, he met persons returning from the mines who told him that California was played out. Forty years of experiment has demonstrated the worthlessness of their judgment. The metals, cereals, fruits and liquors of Alta California command the markets of the world. Some of the mental descendants of these same fellows are coming back from the gold fields saying that Lower California is played out. The boundary line does not change the climate and resources. Nature has not placed an oasis on the American side and a desert on the Mexican side. Alta California itself was once a part of Mexico. The same mountains that are towers of strength to Southern California are the eternal fastnesses of the peninsula. The same balmy breezes blow softly amid her pines and waft the fragrance of her orange blossoms inland. The same characteristics of soil, climate and products exist south of the boundary line as north. It is a land of sunshine and silver, of fruits and flowers, of grain and gold, of gems and jewels, of the walnut and wine, of the olive and the orange, of banana and tobacco, of fish and fowl, of grand possibilities and certain probabilities of development. The "great American desert," which was driven westward so many years by the map-workers, who as late as 1700 made California an island, and who shoved their mystical waste on the peninsula, will have to find another abiding place—on the maps.

THE COLOPHON OF THE WORLD.—With a soil so rich and well watered, and so genial a clime, it is only the question of time, and not long either, when the great valleys and broad mesas of the peninsula will be occupied by a soil-delving and cultured people. Her grand harbors indicate her future commercial greatness. With the country fully populated, and it can sustain a dense population, with its cities which will grow by its harbors, with a clime which is a help instead of a hindrance to work, it will, with Southern California, whose climate and soil are identical, be the colophon of the world—hindermost only in the sense of time. Here will be the grand culmination of the world's civilization. Here the arts and sciences will attain their highest perfection.

"Times noblest offspring is the last."

CHAPTER V.

THE METRIC SYSTEM—GLOSSARY OF MINING TERMS—GLOSSARY OF SPANISH MININC TERMS—TERRITORIAL DIRECTORY—ANNUAL RAINFALL—ADVERTISEMENTS.

THE METRIC SYSTEM.

Mexico adopted the metric system in 1857 for all weights and measures except money. In the United States of America, while allowable, it is practically applied only to money. The standard units of the metric system are:

A meter—which is 39.37 inches.

An are—which is 1-10 less than four square rods.

A liter—which is 1.05 quart.

A gramme—which is equal to 15.4 grains.

Changes from the standard units are according to the decimal scale of tens, making it the most natural and easy system of computation in the world.

The descending changes are designated by prefixing the Latin ordinals to the names of the standard units and the Greek cardinals for the ascending changes. Deci, express the 10th part; centi, the 100 part; and milli the 1,000th part. Deca expresses 10 times the value; hecto, 100 times; kilo, 1,000 times and myria 10,0000 times.

Thus a kilogram, so often quoted in the tariff, is 2 1-5 pounds avordupois. A kilometer is nearly 5-8 of an English mile. A centimeter is is .39 of an inch. A hectare is nearly 2½ acres. A litre is a gallon and .45 of a gill.

GLOSSARY OF MINING TERMS.

Adit—a horizontal tunnel to drain mines.

Bed—a seam or horizontal vein of ore.

Bob—the beam of an engine or pump.

Bottoms—the lowest workings in a stope level or elsewhere.

Cage—the band of a whim, or the elevator.

Country—the strata or rock through which the vein or lode passes.

Crushing—grinding the ore without water.

Dead ground—a portion of a lode where there is no ore.

Dip—direction of a lode or vein.

Drift—an excavation made for a road underground.

Driving—digging horizontally.

Foot-wall—the wall under the lode.
Hanging wall—the wall over the lode.
Horse—dead ground.
Levels—galleries on the lode.
Lode—a regular vein of metal.
Run—direction.
Shaft—a pit or sump.
Smelting—reducing the ore by fire.
Stope—a horizontal bed; ore adjacent to the levels; to stope, to excavate horizontally, layer after layer.
Spar—quartz.
Slag—melted mineral refuse of a smelter.
String—a small vein.
Sump—a shaft or pit.
Tamping—material (dirt or soft stone) placed on gunpowder to confine its force.
Whim—a hoisting machine.
Winze—a shaft on a lode connecting one level with another.

SPANISH MINING TERMS.

[Spanish is a purely phonetic language; the Spanish j always has the power of the English h.]

Acéro—steel.
Ademadór—a mining carpenter.
Agua fuerte—nitric acid.
Aliméntos—a grub stake.
Arrastra—a primitive mill for crushing ores.
Azógue—quicksilver.
Azúfre—sulphur.
Aviador—he who supplies funds for working mines.
Barránca—a ravine.
Batea—a bowl or miner's pan.
Bonanza—a rich find in a mine.
Borrasca—the opposite of a bonanza.
Caballo—a horse.
Cal—lime.
Caliche—calcareous matter.
Cerro—a hill.
Chino—pyrites.
Cobre—copper.
Cuerpo—lode.
Denuncio—to denounce.

Dedo—the twelfth part of a palmo.
Ensaye—assay.
Fanega—1.599 of an English bushel.
Fanegado—an extent of land; 90⅓ fanegados are equal to 100 English acres.
Frente—the extremity of an adit or other level.
Frijoles, beans.
Granada—a garnet.
Grasas—slug.
Hacienda—farm, manor, estate; establishment for reducing ores.
Hechado—dip of a lode.
Hierro—iron.
Hierro colado—cast iron.
Hierro labrado—wrought iron.
Intervenor—an inspector representing the interests of proprietors by whom appointed, or of the arivador.
Marc—eight ounces.
Mojon—a landmark to designate the limits of pertenencias.
Muertras—samples.
Onique—onyx.
Oro—gold.
Palmo—quarter of a vara, or old Spanish yard.
Patio—a court yard.
Pepitas—gold or silver nuggets.
Peso—a dollar.
Pertenencia—a miner's claim, 112½ to 200 meters, according to the underlay of the vein.
Peña—rock.
Plomo—lead.
Polvoro—gunpowder.
Poso—a well, pit or shaft.
Quarzo—quartz.
Quilate—a carat.
Real—⅛ of a dollar, a California "bit;" also a mining district.
Sal—salt.
Serape—a kind of blanket.
Vara—a Spanish yard, nearly 33 English inches.

DIRECTORY OF FEDERAL OFFICES.

General Government of Mexico.—President, General Porfirio Diaz; Secretary of Foreign Affairs, I. Mariscal; Attorney General, Joaquin Baranda; Secretary of War and Navy, General Pedro Hinojosa; Secretary of the Treasury, M. Dublan; Secretary of State, Manuel Romero Rubio; Secretary of Public Works, Colonization and Commerce, General Carlos Pacheco.

TERRITORIAL GOVERNMENT OF BAJA CALIFORNIA.—Governor, Gen. Luis E. Torres; Secretary, Francisco Muñoz; Keeper of Archives, Miguel Santos; Amenuensis, Rosario F. Cota.

CUSTOM HOUSE OF ENSENADA.—Collector, Castulo Romero; Cashier. Manuel Gómez Montaño; Appraiser, Miguel Calvo y Arias; Commander of Custom House Guard, José A. Rubalcava.

CAPTAIN OF THE PORT —Juan B. Verde.

CUSTOM HOUSE AT TIA JUANA.—Collector, Francisco A. Flores.

DISTRICT COURT.—Judge, José Reyes Spindola; Secretary, Clemente Galindo Campos; Promotor Fiscal, Francisco Espinosa.

COURT OF FIRST INSTANCE.—Judge, Pedro Rendon; Secretary, Jesus M. Cadena; Agent of Public Minister, Genero Lamadrid.

CIVIL JUDGE.—Frederico Palacio.

FEDERAL RURAL TROOPS.—Commandant, Pedro Miramontes.

GOVERNMENT TELEGRAPH OFFICES. — Todos Santos, Superintendent, J. Palafox; Real del Castillo, T. Lamadrid; Local Postoffice Administrator, J. M. Gonzalez.

REVENUE STAMPS.—Sub-administrator, Carlos Guijosa.

PUBLIC SCHOOLS.—Teacher of girls' school, Luisa Narcio; teacher of boys' school, José M. Lanz Zavala; English school, Mrs. Z. E. Gray, principal, and Mrs. A. Ramus, assistant.

MUNICIPALITY OF THE NORTHERN SECTION OF THE TERRITORY.—Second Alderman, Emilio Legaspy; third, Antonio Feliz; fourth, Solano Amador; fifth, Jesus Rivera; sixth, Victoriano Warner; seventh, or Attorney-General of the Town, Luis Mendelson; Treasurer, or Municipal Collector, A. Villarino.

ANNUAL RAINFALL IN LOWER CALIFORNIA.

Taken from the daily record as kept at Ensenada by Col. D. K. Allen, Land Inspector of the International Company:

YEARS.	INCHES.
1878–1879	15.50
1879–1880	17.75
1880–1881	15.25
1881–1882	9 50
1882–1883	42.00
1883–1884	18.10
1884–1885	32.05
1885–1886	27.15
1886–1887	24.10
1887–1888	25.50
Total	226.90
Average	22.69

The amount of rainfall so far this season has been 18 inches.

ST. NICHOLAS MILL SHIPMENTS.—The mill has been running about five weeks, during which time two clean-ups have been made; the first return being $2,143.92. The second gold brick has gone forward, weighing 95 ounces. The value is estimated at $1,600. The third is expected about the 20th of March, 1889.

THE DIRECT LINE

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—IS VIA—

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To San Diego, California.

THENCE BY STAGE LINE TO THE MINES, 125 MILES DISTANT, OR BY STEAMERS from San Diego to Ensenada, there connecting with stages for the mines, forty-five miles distant,

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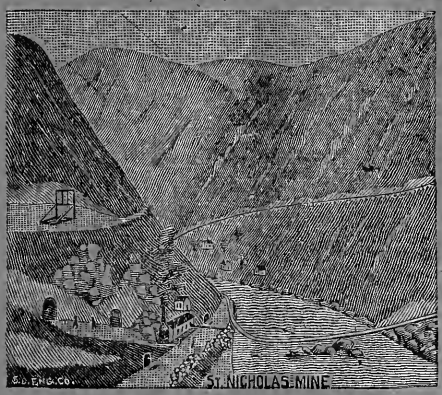

THE OLD RELIABLE

St. Nicholas

MINE!

—AND THE—

SAN FRANCISCO,

Located two miles north of the mining town of Real Del Castillo, 32 miles east of Ensenada, communication by Stage and Telegraph, the present company under the title of **The Consolidated St. Nicholas and San Francisco Gold Mining Company,** of Lower California, office 1318 D. St., San Diego, have three shafts at the **ST. NICHOLAS** ledge (which varies in width from 5 to 10 feet). One at a depth of 90 feet, one at 80 feet, and the third being intended for the main shaft is down 45 feet, having developed the same as the two former shafts, ore varying from $15 to $300 per ton. The equipment of the mine consists of Boiler and Engine, of 40-horse power, a heavy 10-Stamp Mill, 1000 lbs. to the stamp, a large Dow Pump, Batteries, Reduction Works, Blacksmith Shop, Boarding and Lodging Houses, all tools, offices, etc.

The **MILL** now in operation has made three clean ups, aggregating $5000, making a magnificent showing. The outside plates alone paying the expenses of mining and milling.

The **SAN FRANCISCO MINE** owned by the company is claimed to be as good as the **St. Nicholas,** but less developed. A lease or sale of a one-half interest in this mine is contemplated, and capitalists will do well to investigate and secure an interest in this valuable property. Ex-Governor Ryerson, of Lower California, J. P. Wallace, of the Standard Iron Works, San Diego, Cal., Col. Payne, of the Los Angeles Tribune, have examined and are conversant with these properties.

THE QUEEN

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